REPORT RESUMES

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DEVELOPMENT OF AN INSTRUMENT FOR ELICITING AND EVALUATING VOCATIONAL IMAGERY.

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THIS STUDY WAS CONDUCTED TO (1) PRODUCE AN INSTRUMENT FOR ELICITING VOCATIONAL IMAGERY FOR USE IN THE EDUCATIONAL-VOCATIONAL ORIENTATION AND COUNSELING OF HIGH SCHOOL YOUTH, AND (2) DEVELOP A SCALE FOR EVALUATING THE MATURITY OF THE VOCATIONAL IMAGERY ELICITED BY THE INSTRUMENT. A PREVIOUSLY DESIGNED INSTRUMENT "WHAT I THINK OF MYSELF" (A SEMIPROJECTIVE TYPE FOR CONTROLLED COMPOSITION) WAS REVISED ON THE BASIS OF ANALYSES OF OVER 280 PROTOCOLS OBTAINED ON EARLIER PILOT STUDIES. THE MODIFIED QUESTIONNAIRE WAS READMINISTERED TO OVER 210 STUDENTS IN THE EIGHTH, ELEVENTH, AND TWELFTH GRADES FROM THREE PUBLIC SCHOOLS. RESULTING PROTOCOLS WERE ANALYZED, PRIMARILY, ON THE BASES OF AUTHENTICITY, VARIETY, COMPREHENSIVENESS, AND MEANINGFULNESS OF THE STUDENT DISCLOSURES. STUDY PROTOCOLS WERE RATED BY SELECTED JUDGES IN TERMS OF THE DEGREE OF VOCATIONAL MATURITY EVIDENCED, TO DEVELOP AN INDUCTIVE "MATURITY SCALE." MATURITY ASSESSMENTS WERE CORRELATED WITH DATA OBTAINED FROM STUDENTS' CUMULATIVE RECORDS AND WITH VOCATIONAL CHOICES MANIFESTED IN DECLARATIONS OF PLANS TO SCHOOL COUNSELORS. IMMATURITY EVIDENCED IN STUDENTS' VOCATIONAL THINKING AND IMAGERY WAS CHARACTERIZED BY CONFUSION, STEREOTYPED OUTLOOKS AND ASPIRATIONS, AND OMNIPOTENT FANTASY. THE MODIFIED QUESTIONNAIRE APPEARED TO REACH A DEEPER LEVEL OF INVOLVEMENT AND FANTASY EXPRESSION OF STUDENTS THAN HAD BEEN SHOWN PREVIOUSLY BY OTHER STRUCTURED METHODS. IN GENERAL, THE RESEARCH PRODUCED INSIGHTS ON HOW TO BE MORE EFFECTIVE IN REACHING STUDENTS AT SIGNIFICANT LEVELS, TO ELICIT VOCATIONAL MATERIAL, AND TO ENHANCE THEIR AWARENESS AND UNDERSTANDING OF THEMSELVES. (HB)

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DEVELOPMENT OF AN INSTRUMENT FOR ELICITING AND EVALUATING VOCATIONAL IMAGERY

Cooperative Research Project No. 1368

reported by:

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Division of Teacher Education
Board of Higher Education
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CHAPTER I

NATURE OF THE STUDY

I. The Problem

One of the most important aspects of secondary guidance comprises the educational-vocational orientation of high school youth toward appropriate post-secondary education or employment and eventual adjustment in a suitable and socially useful occupation.

Although it has been generally agreed that it is not too early to begin thinking about careers and educational preparation for them during the junior and senior high school years, most observers believe that the vocational outlooks of a great many high school and college youth in America today are immature. One of the most recent reports is that of Beardslee and O'Dowd.(1) In a study of occupational outlooks among college students they found that student "responses to names of occupations reveal a complex structure of beliefs organized about dimensions of personality, styles of life, and social relationships associated with the world of work. On the other hand, it has been noted that careful questioning of students about formal job characteristics shows a very limited grasp of the day-to-day demands of these same occupations even for those jobs to which a student aspires." (p. 623) In his important volume on The Psychology of Careers (2) Super has pointed out "that many students, even as late as in the graduate or professional school, still need a great deal of orientation to themselves and to their prospective fields of work." (p. 85) and in a later work The Vocational Maturity of Ninth Grade Boys.[1] Super and Overstreet, it is stated: "The typical ninth-grader does not understand himself and his potentialities as well as he should in order to choose between levels, and still less among fields of endeavor as reflected in the curricular alternatives open to him." (p. 153).

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(1) "Students and the Occupational World", Chapter 18, in The American College, (Nevitt Sanford, Ed.) John Wiley and Son, 1962.

(2) The Psychology of Careers by Donald Super, Harper and Brothers, 1957.

In a pilot study preceding the research on which this report is based, the senior author and associates found a substantial amount of immature fantasy and stereotyped images in the protocols of secondary school youth then studied.

The general problem of improving our understanding of vocational outlooks among adolescents and post-adolescents, how these outlooks are formed, and how they may be favorably influenced through education and guidance, seems to be, in the first instance, one of "getting at" the content and character of individual outlooks as close to their psychological core as possible.

While useful in many respects, those approaches which have employed questionnaires, check-lists and the like do not tend to produce highly individualized responses, do not evoke the most significant psychodynamic contents that are at the core of the individual's perceptions and outlooks, do not succeed in avoiding considerable amounts of interference on the part of interpreters and generally have the disadvantage of imposing, in one way or another, pre-conceived patterns upon the responses of subjects.

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(1) The Vocational Maturity of Ninth Grade Boys by Donald Super and Pheobe Overstreet, Teachers College, Columbia University, N. Y., 1960.

Within the theoretical framework to be briefly outlined later, one of the chief considerations underlying the adopted approach was that of finding means to elicit from high school youth, forms of vocational imagery as free as possible from distortional "leads" and as genuinely representative as possible of significant psychodynamic processes at the center of the individual's cogitations and ruminations about vocation.

The study, therefore, as defined for the purposes of the current study was double-pronged:

(1) how best to elicit genuine vocational imagery among secondary youth, in order to study various aspects of their vocational outlooks, and

(2) how best to evaluate the vocational imagery thus evoked in order to judge the present status of the individual's thinking about vocation and the progress of his maturation.

II. Objectives of the Study

The primary purposes of the study as proposed were (a) to produce an instrument for eliciting vocational imagery for use in the educational-vocational orientation and counseling of high school boys and girls, and (b) to develop a "maturity scale" for the evaluation of the vocational imagery so elicited.

Additional coordinate objectives of the study were:

(a) the development and refinement of procedures for the employment of the instrument in initiating discussions in group guidance classes, in clarifying vocational attitudes and images among high school youth, and in fostering maturation of such attitudes and images.

(b) The development of new insights and constructs about the vocational psychology of adolescent and post-adolescent youth, and of the stages of their psychological development toward more mature outlooks.

In connection with these objectives, such questions as the following were projected:

Can certain dimensions of vocational maturity be inductively derived from the inspection of responses to an experimental instrument designed to elicit vocational imagery in secondary school youth?

Can these dimensions be quantitatively delineated?

Can a scale then be developed for evaluation of an individual's state of vocational maturity for guidance and counseling purposes?

In planning the study, it was also deemed necessary to correlate protocol contents and assessed vocational maturity with age, sex, social data, scholastic data, and other personal characteristics that might be collected.

III. Background of the Study

In the spring of 1957, before leaving for a sabbatical year, the senior author had devised an instrument Experiment in Psychology - What I Think About Myself for use with high school youth in assisting them and their counselors to understand more clearly the vocational outlooks of the pupils.

An advanced graduate student in the counselor education program of the College of the City of New York, Mrs. Sylvia Friedlander, became interested in the instrument for possible use in her English classes. (1) During the academic year of 1957-1958, Mrs. Friedlander administered What I think About Myself to several classes of students in her senior high school on the 10th and 11th grade levels. Protocols produced by students in these classes, numbering more than 200, seemed reflective of their ideas, outlooks, attitudes and fantasies; and were exceptionally rich in material for further analysis and study. Accordingly, when the senior author returned from his sabbatical leave in 1958, inductive study of the protocols was immediately begun in order to discover various patterns of psychodynamics exhibited in the protocols, evidences of mature or immature perceptions on the part of the high school adolescents, different types of outlook displayed, etc.

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(1) These classes were taught by Mrs. Friedlander at Andrew Jackson High School, Queens, New York, Dorothy Bonawit, Principal.

These preliminary inductive studies, conducted by Dr. Bernard Katz, Dr. Stewart Blum, Mr. Richard Phillips and the senior author confirmed the authenticity of the data and its potentialities for further study. A proposal was then prepared in the spring of 1961 and application made for funds under the Cooperative Research Program of the U. S. Office of Education to pursue research for the "development of an instrument for eliciting and evaluating vocational imagery". After approval of the study for one year, investigations were begun in the fall of 1961 by Dr. Mathewson and Dr. Orton, with Miss Frances Phocas acting as half-time assistant. The current report constitutes a description and exposition of procedures and results of the one-year investigation.

Hypothetical Considerations.

Leading up to the original construction of the instrument: An Experiment in Psychology - What I Think About Myself by the Senior author and to the proposal for this research study after pilot trials of the instrument, were a series of hypothetical considerations which may be expressed roughly as follows:

A vocational tendency in the individual looking toward eventual vocational placement and adjustment is a function of a complex accommodation of subject (self) factors and the individual's perceptions of objective (situational) factors.

A vocational tendency in the adolescent may be viewed as an ongoing processional activity incorporating varying shifts of direction, fluctuating centers of interest, differing degrees of conscious understanding and personal integration, etc.

At any one point, or stage, the character of the individual's vocational tendency will be reflected in his vocational outlook or perception of self in relation to possible occupational activity or commitment and its correlates.

To the extent that the individual's vocational outlook or perception can be "tapped" or "objectified" in some way that will provide expressive material for analysis, we may be able to understand more clearly what is occurring at the "core" of the individual's self-identifying, self-defining and self-formative processes and thus be more helpful to him in self-interpretative ways through counseling and guidance.

One means of "tapping" the individual's vocational outlook might be through a form of semi-projective instrument in such a way as to secure maximum involvement without imposing of ideas, the individual being asked to react in writing to broad general stimuli of a not too directive sort over a sequence of weeks, thus eliciting an extended series of subjective delineations of outlooks.

Such a series of personal portrayals might be studied, among other ways, in terms of their "maturity" of outlook as conceptualized by professionally competent adult judges prior to examination of protocols, and as formulated by the same judges inductively as they proceeded to read and analyze student protocols on a comparative basis.

Any Scale of Maturity thus inductively extracted and formulated from a variety of protocols might be used to assess other protocols, to evaluate progressive movement toward maturation of outlook among students under guidance, and to assist the individual himself in judging the maturational progress of his own outlook.

Implicit in this set of hypothetical propositions was the idea that the vocational "outlook" of the individual represented a conglomerate of subjective contents centering around a self-situational perceptual nucleus that might be authentically expressed in written products in response to an instrument of a projective type. So expressed, the "outlook" might combine in a genuine form many subjective influences in the individual that might not be evoked in any other way and that could affect appreciably his vocational direction and ultimate adjustment.

With such a projective-type instrument it was felt that many non-cognitive as well as cognitive elements might be extracted and if the approach were such as to be of maximum interest to adolescents, students might then become effectively involved in appropriate studies, under guidance, of the maturation of their own outlooks. Thus in use of the instrument prospects were envisaged of a sequence of interrelated activities including: arousal of student interest, widespread personal involvement among students, initiation of an ongoing educative process of a guidance nature (discussion among students, group work, individual interpretations etc.) and assessment of maturational progress among students, in part, perhaps, by the students themselves.

Also comprised in this approach was the belief that from numbers of secondary school youth protocols could be elicited which would: (a) reveal common denominations of vocational tendency (b) different aspects of dimensions of vocational development or maturation and (c) different stages of a process of growth toward maturity.

Relevance of the Study to Previous Theoretical Framework

For a more complete understanding of the current project in its full professional significance, it is of some consequence to note that the original formulation of the research instrument Experiment in Psychology - What I Think About Myself and its use in pilot studies prior to initiation of the current investigation, emerged from a considerable background of previous practice, theorizing and research resulting in the formulation of a conceptual framework of what has been called Self-Situational theory of guidance and counseling practice.(1)

Beginning in 1954, a series of research studies within a comprehensive over-all design was inaugurated at the central facility of the Program of Graduate Training in Guidance and School Counseling, College of the City of New York (later, The City University of New York). The first of these studies was reported by Mathewson and Rochlin in 1956.(2) It is significant to note in relation to the present study that the main theme was the discrimination of counselee perceptions in five dimensions: (1) perceptions of self (2) perception of own reactions to others (3) perception of others' reaction to self (4) self goals and directions (5) values and ideals.

Among the central major problems emerging from the Self-Situational theory and correlative developmental philosophy of guidance above indicated remained the question as to whether developmental processes among school youth (particularly those pertaining to educational-vocational orientation) might be

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(1) At the Graduate School of Education, Harvard University and the Guidance Center there, the senior author conducted a number of staff conferences and also evaluative researches resulting in basic theoretical considerations recorded in "A Report on Guidance Center Operations", The Guidance Center, Harvard University, Cambridge, Mass. 1949. In the first edition of the textbook Guidance Policy and Practice, Harper and Brothers, 1949 and in the revised editions of 1955 and 1962, the senior author extended earlier theoretical formulations into the Self-Situational model which has influenced his philosophy of guidance and research directions.

(2) "Analysis of Unstructured Self-Appraisal", Journal of Counseling Psychology, Spring, 1956.

"opened up" for evaluation by guidance practitioners and whether students might be induced to participate in their own maturation through an educative, rather than a directive, process of guidance and counseling. The instrument in the current study was expressly devised to test both of these possibilities. Both instrument and associated scale, as at present developed, will be employed during the academic year 1962-1963 in actual guidance practice in collaborating secondary schools to assess the practicability and outcomes of developmental forms of vocational guidance.

CHAPTER II

RELATED RESEARCH

Significant research related to the present study will be treated on subsequent pages under two main categories: studies employing instruments for the assessment of vocational imagery and perceptions; and studies dealing with the dimensions or factors of vocational maturity.

In addition, the relevance of the present study to some of the major theoretical frameworks of vocational development will be briefly considered.

I. Studies Employing Instruments for the Assessment of Vocational Imagery and Perceptions.

Occupational Stereotypes and Manifest Needs of High School Students. In an article in the Journal of Counseling Psychology, Vol. 8, No. 4, Winter, 1961, Dipboye and Anderson reported on the results of a study of occupational stereotypes among high school youth. They pointed out that the perceptions which an adolescent has of roles played by the members of various occupations may have an important influence on his career choice; that these perceptions may be thought of as role expectations; and that one aspect of an occupational perception can be expressed in terms of the potential of the occupation to satisfy needs. If the assumption is granted that the overt or manifest behavior of an individual is an indication of his need structure, it may be further assumed, these authors contend, that the occupation, as a major component of the individual's life, is an influential factor in the satisfaction of these needs.

Thus, the individual will tend to perceive, probably on an unconscious level, an occupation in terms of its potential to satisfy needs, according to Dipboye and Anderson.

In attempting to measure occupational stereotypes (patterns of manifest needs) held by secondary school youth and common occupations, Dipboye and Anderson formulated an instrument of 70 phases reflecting 14 manifest needs as described by Edwards in 1954, a number of which were derived from Murray's list of basic needs first described in the latter's Explorations in Personality.

The 448 high school seniors who were studied (enrollees attending high schools near Syracuse University) exhibited differentiated stereotypes (in terms of inferred needs) for certain occupational fields. Occupations for which the high school students designated differential need patterns were: scientist, school principal, high school teacher, elementary teacher, engineer, physician, nurse and social worker.

As illustrative of the stereotypes held by high school students, and their possible bearing on vocational tendencies, we may quote Dipboye and Anderson's analysis of the profile patterns of three occupations.

> "The scientist and the engineer are believed to be relatively cold people whose lives are not complicated by the needs for friends and social contacts. The physician, on the other hand, is presumed to have relatively high needs in the areas of Nurturance and Intraception. Similarities occur in the need for Endurance. While all three of these occupations are perceived as requiring hard work, it is interesting to note that the scientist is believed to work hardest of all, with the engineer second, and physician a relatively poor third. The engineer is presumed to manifest behavior which indicated a higher need for Achievement with the scientist second, and the physician again third. The need for Order presents an interesting contrast. The physician and the scientist have scores which are relatively close to chance (7.14%), while the engineer has a score which indicates that Order is a strong motivation on his part. Another interesting point in the comparison of

> these three occupations can be seen in the scores representing the need for Affiliation. In this need, the engineer and the scientist have low scores (scientist 0.3, engineer 1.0), while the physician has a score of 7.5 which is significantly higher, even though it is very close to a chance score.
>
> "These comparisons among the occupations of 'scientist', engineer, and physician would seem to indicate that those youngsters who desire warmth, affection, and close human relations in their lives and whose perceptions of these occupations are close to those of the subjects in our study, may tend to steer away from the occupations of scientist and engineer."

Some warranted inferences from this report seem to be that occupational perceptual patterns may be effectively studied among high school students, that these patterns may be linked with those displayed in various occupations, and that favorable shifts in vocational direction may be undertaken with interpretative help from appropriately trained counselors.

Personal Life Orientation Patterns Linked with Congruent Occupational Fields.

Holland, (1, 2) has used a Vocational Preference Inventory (lists of occupations) as one means of assessing individual life orientations (complexes of habitual coping mechanisms, personal traits, vocational and educational goals, aptitudes and other attributes) toward different occupational fields that satisfy these particular complexes. According to Holland, the person making a vocational choice in a sense "searches" for those environments which are congruent with his personal orientations. In our culture, he identifies six types of people to represent the characteristic patterns of personal orientation, or development: Realistic, Intellectual, Social, Conventional, Enterprising and Artistic.

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(1) "A Theory of Vocational Choice," Journal of Counseling Psychology, Spring 1959.

(2) "Some Explorations of a Theory of Vocational Choice," an address at the American Personnel and Guidance Association, Denver, March, 1961 (mimeo).

Occupational Stereotypes among College Students.

Beardslee and O'Dowd reported on career perceptions of college students in "Students and the Occupational World", a chapter in The American College (Nevitt Sanford, ed.) John Wiley and Sons, Inc. 1962. They investigated occupational stereotypes among college students by means of a rating form of 34 bi-polar occupational characteristics (wealthy: not-well-to-do, optimistic: pessimistic, indifferent to people: attentive to people, etc.). Students were asked to rate 15 different occupational titles according to the 34 two-ended factors, or scales. The authors report that "very clear and definite profiles were obtained for each occupation. These can be organized to give a sense of what students believe about the kind of people and the mode of life to be found in each occupation." (p. 614).

> "...it is fair to say that for college students very general stereotypes exist for each of the 15 occupations studied. These images are produced with very little variation by independent samples of students.
>
> "This very high level of agreement on the shape of individual occupational profiles among different samples of students is accompanied by large differences between profiles of different occupations. Very large distinctions are made among the different occupations by all groups of students, and all of the groups are in substantial agreement on the form of the differentiation between occupations." (p. 618).
>
> "For many of these students (transfers to other fields in college) changes are made from preparation for occupations and professions that are mainly noted for their cultured intellectual component in the student images to fields that promise very comfortable living standards and high status. Not only do these data reflect a shift of interest more in keeping with visible job opportunities, but they also represent the acceptance of a different segment of the occupational world as compatible with the concept of self..." (p. 621).

Effect of Interpersonal Perceptions on Level of Occupational Aspirations.

In one of the Harvard Studies in Career Development, reported in December 1958,(1) Jiwan Lal Pandit, working with David V. Tiedeman, constructed a questionnaire in which each subject expressed his estimate of himself on the basis of a number of selected traits, attitudes, etc. and the estimates which significant others were presumed to be (father, mother, teacher, pals and girl friend). Male adolescents to the number of 227 in the Junior and senior classes of two schools responded. According to the author his findings suggest "that level of occupational aspiration definitely depends on the identity an adolescent perceives himself to have attained in social systems of relevance to him...our variables order perceptions in a manner predictive of level of occupational intent."

Conceptions of Self as Related to Occupational Role Perceptions.

In another one of the Harvard Studies in Career Development,(2) Anne K. Kibrick devised questionnaires to study the image of a student in nursing concerning the attributes of a nurse's role in relation to those held by her supervisor. Scores were obtained for the students (1) knowledge of the training program (2) knowledge of the activities of a nurse (3) image of the attributes of the ideal nursing student (4) knowledge of her rights and obligations in relating with superiors, peers, and patients (5) conceptions of herself and her superiors' conception of the attributes of the ideal nursing student (6) conceptions of herself and her conception of the attributes of the ideal nursing student. The basic experimental postulate was that "perseveration towards the objective of becoming a nurse is a direct function of the amount of correspondence existing between the images of student and supervisor when the student embarks upon her training. Out of 126 correlations, 13 proved to be significant and in the direction indicated by theory. According to the author, results suggest, however, "that, at entry, incompatibility with the expectations of those who set the role does not have a marked influence on staying in a school of nursing for less than six months."

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(1)"On Identity and Level of Occupational Aspiration", David V. Tiedeman and Jiwan Lal Pandit, Harvard Studies in Career Development, No. 9, December,1958.

(2) "Conceptions of self and Perception of Role in Relation to Continuation in Schools of Nursing", Anne K. Kibrick and David V. Tiedeman, Harvard Studies of Career Development, No. 12, August, 1959.

Occupational Perceptions as a Function of Titles and Descriptions.

The role that job titles in interaction with descriptions play in occupational perceptions was studied by Samuel H. Osipow and reported in The Journal of Counseling Psychology, Vol. 9, No. 2, Summer, 1962. The main hypothesis was that differences in attitudes toward a pair of specific job titles for the same occupation (janitor and building superintendent) would exist when no job description was provided and that these differences would persist along the evaluative dimension of meaning alone when descriptions were provided. Ninety-six university students enrolled in an adolescent psychology course rated one of two jobs on 15 pairs of bi-polar words. Half the subjects had descriptions for the jobs, half did not. "Differences in attitude toward the job titles were found on the evaluative and potency dimensions of meaning under 'no description' conditions. Neither of these differences appeared under 'description' conditions."

According to the author, the results suggest "that there are likely to be differences in perceptions of careers along various dimensions of meaning when the stimuli are presented in the form of specific job titles. The results further suggest that these differences may be reduced by the presentation of minimal occupational descriptions."

Occupational Choice as a Crystallized Self Concept.(1)

As a result of polling four to eight years later, 343 pre-medical graduates, University of Minnesota, who had not been admitted to the School of Medicine upon first application, Richard R. Stephenson found that 61.8% of the respondents went into medical-and-related occupations and 38.2% went into non-medically related occupations. The largest single group (29.7%) were working in M.D. degree occupations. Two-thirds of the total applicant group were eventually admitted to a medical school and a majority were eventually found in medical or related occupations. The findings were interpreted as evidence that "the self-concept of the pre-medical student has crystallized prior to making application to a school of medicine."

According to Stephenson, two findings stand out clearly:

> "First, there is a tremendous degree of consistency in findings, regardless of the manner in which the respondents are grouped. This consistency is in implementation of a self concept of physician, or logically related and compromise occupation, and seems to argue very strongly for a conclusion of crystallized and specific self concept prior to making application for admission to Medical School.
>
> "Second, there is a large amount of variability in the occupations finally selected. This seems to argue very strongly that individual differences, even within these very homogeneous groupings, will be reflected in a variety of occupational choices. Relevant here is Super's proposition that while specific occupations do 'require characteristic patterns of abilities, interests and personality traits,....(still they have)....tolerances wide enough to allow both some variety of occupations for each individual and some variety of individuals in each occupation'.

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(1) "Occupational Choice as a Crystallized Self Concept", Richard R. Stephenson, The Journal of Counseling Psychology, Vol. 8, No. 3., Fall, 1961.

> "Thus, accepting only the reasonable proposition that most practicing physicians and most medical school students have a crystallized occupational self concept, it seems clear that the occupational self concept of the physician has become specific before application to professional school, and has crystallized to the extent that the individual persists in implementation throughout his early adult occupational history."

Personality Factors in Vocational Choice.

From the standpoint of psychoanalytic theory, Stanley J. Segal, reporting in The Journal of Counseling Psychology, Vol. 8, No. 3, Fall, 1961, found that students in accounting and creative writing differed in personality factors. Fifteen accounting students and fifteen creative writing students were studied at the University of Michigan. Subjects were given the Rorschach and Bender-Gestalt and asked to write a brief, one-page vocational autobiography. Some findings suggested by results were: (a) accounting students seem to react more frequently in a practical and formal manner restricting spontaneity for a responsiveness that is more in line with expected norms and values. Creative writers, on the other hand, seem more concerned with integrating and theorizing and are less concerned with social expectations. Accountants conform to the more usual societal expectation by having set their goal by the time they finish high school. (b) creative writing students are more able to respond to emotionally-toned situations with some form of response that shows their awareness of and responsiveness to the emotionally provoking situation than are the accounting students (c) creative writing students seemed to be more prone to hostility

(d) creative writing students seemed to be more at ease with ambiguous situations and can react to them more productively than accountants (e) accounting students show signs of a more rigid, fearful identification as compared to a seeking for the completion of multiple identification in creative writing students.

Segal's general hypothesis is of interest in connection with our own research on vocational imagery:

> "If vocational choice is viewed, not as a peripheral decision of an individual, but as a concrete expression of personality development within the framework of the environmental pressures and opportunities with which the individual is confronted, then: the same theoretical factors that have been helpful in understanding personality development should be applicable to understanding vocational choice. Psychoanalytic concepts such as identification, the development of defense mechanisms and the theory of sublimation, can be used to gain insight into the personality characteristics of individuals who make a specific vocational choice."

Complex Factors of Individuality as Related to Choice.

Leona Tyler has long believed that "the core of individuality consists of a person's choices and the way he organizes them." She reports her most recent studies in The Journal of Counseling Psychology, Vol. 8, No. 3, 1961, Fall of 1961. Her methods comprise a combination drawn from interest measurement and concept formation. Subjects are asked to place the names of 100 occupations in three separate groupings: "Would Not Choose" (those that "would be out of the question for a person like you"; "Would Choose" (those that "you can see as possibilities for a person like you"); "No Opinion" (can't make a decision). After removal of "No Opinion" items, subjects are asked to break up the two larger groupings into smaller sections of "occupations that for some reason go together in your mind." Subjects are then asked to tell what it is that each of his groups represent, what he means by the distinctions he makes and which of the negative groups and positive groups he sees as most important for him.

Tyler's comments on her findings to date are of considerable consequence to investigators, such as the current authors, who hypothesize highly individualized, self-definitions evolving out of experience. Some excerpts from her report in The Journal of Counseling Psychology follow:

> "What one gets out of this situation (research as described) is a highly complex delineation of some aspects of the subjects personality that are not revealed by the psychological testing methods we ordinarily use.
>
> "In many cases well-organized systems of values are in evidence-deep-seated attitudes about the meaning and purpose of life. In a few cases there seems to be complete confusion. The person gives an impression of never having made a choice before with regard to his own life plans. These are only a few of the aspects of individuality one must deal with here."

With regard to the stability of descriptive analysis of individual protocols, Tyler has this to say:

> "It was clear that even in cases where the number of similar statements (her analysis of individual characteristics) for a subject were comparatively low, there were few, if any real contradictions. What happened was that each person expressed certain things about himself on the first occasion. On the second occasion, he repeated some of these but supplemented them with some other things he had not mentioned the first time. This means that one obtains a more comprehensive picture of the person if he takes both performances into account.
>
> "....some individuals (over a three-month interval) change much more than others do. Casual inspection of the protocols suggest that the rich, meaningful records show more shifts than the meager ones do.

> "....individual differences of many kinds are so large and striking that they outweigh any sort of group differences. Among persons who choose science as a career, for example, there are all kinds of individual interests, attitudes, and values that show up when they are given an opportunity to do so, as here. Those who choose business resemble each other in several ways, but they differ from one another in many more."

Some Implications of Studies on Vocational Perception.

There seems little question that studies of vocational perception through the use of special instruments and methods in recent years have opened up an entirely new vista in the field of vocational development and in guidance and counseling practice. For those illustrative researches briefly summarized in previous pages, it seems that the following conclusions are warranted:

1. Youth are influenced in their vocational tendencies and in eventual choices of occupations by perceptual complexes or images of what an occupation "is like" and "what kind of people" follow this occupation.
2. Youth are also affected in their vocational directions by subjective influences of many kinds, - conscious, partly conscious, and unconscious, - that are derived from many sources, inner and outer.
3. Through various stages of maturation, the individual arrives at rough accommodations between internally derived and externally derived influences to form some sort of a self-concept or self-definition which may, or may not be, too clearly perceived or articulated.
4. While the self-definition may include many stereotyped features from an objective point of view, it is composed of many elements that are highly individualistic and from the standpoint of guidance and counseling may be appropriately studied as such.
5. More important than the content of a vocational tendency at any one stage may be the process by which it was reached and the ongoing development and direction of the tendency.

II. Studies Dealing with the Dimensions or Factors of Vocational Maturity.

Stages of Development toward Maturity.

In 1951, Ginzberg and associates published the results of a study into influences upon the occupational choices of a sampling of secondary school youth.(1) In exploration of occupations, it was surmised, adolescents pass through a substage of fantasizing, (6 to 11 years of age) then a substage of tentative choice (at 12 to 17 years of age) and finally a stage of realistic choice (18 years of age and on).

Vocational Maturity and Implementation of the Self-Concept.

Perhaps the most notable set of researches touched off by Ginzberg's study was a series of "career development" researches by Donald Super and associates at Teachers College, Columbia University, and summarized in Super's The Psychology of Careers, Harper and Brothers, 1957, and in The Vocational Maturity of Ninth Grade Boys by Super and Overstreet, Teachers College, 1960. In his major work, The Psychology of Careers, Super cites six main stages of vocational development on the part of the individual: (1) the stage of exploration, or development of a self-concept (2) the stage of transition from school to work, or reality testing (3) the stage of trial or floundering, or attempts to implement the self-concept (4) the period of establishment or modification and implementation of the self-concept (5) the stage of maintenance, or preservation of the self-concept (6) the years of decline, or adjustment.

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(1) Occupational Choice: An Approach to a General Theory, Eli Ginzberg, Sol W. Ginsburg, Sidney Axelrad and John L. Herman, Columbia University Press, 1951.

In his earlier work, Super declared that the individual matures socially and emotionally, through acculturation, through experience in work and social groups, through courtship and marriage. Through such experiences, the adolescent "adjusts his self-concept to reality if he is 'normal', and finds a place for himself." The adolescent, now an adult, is acculturated. Super quotes Baldwin's three processes of mature behavior as (1) cognition (2) goal selection (3) goal-directed behavior, all manifested in his own series of stages.

In the work of the Career Pattern Study, Super and associates found it necessary to define vocational maturity as a basis for constructing a yardstick against which to measure vocational development and as a guide for the selection of data which can be scaled for its measurement:

> "Vocational maturity may be thought of as vocational age, conceptually similar to mental age. Vocational maturity, the place reached on the vocational development continuum, may be described not only in terms of the gross units of behavior which constitute the life stages, but also in terms of much smaller and more refined units of behavior manifested in coping with the developmental tasks of a given life stage."

Viewing adolescence as an exploratory stage, it was postulated that this stage of vocational development is characterized by:

(1) increasing orientation to vocational choice,
(2) increasing amounts of vocational information and more comprehensive and detailed planning,
(3) increasing consistency of vocational preferences,
(4) the crystallization of traits relevant to vocational choices,
(5) increasing wisdom of vocational preferences.

These dimensions of maturity were cited as similar to Baldwin's definition of maturity as scope, realism, flexibility, and stability.

Super and his associates in the Career Pattern Study went on to construct indices of each of the postulated dimensions of vocational maturity, as follows:

I. A. Concern with Choice

II. A. Specificity: of Information
B. of Planning

III. A. Consistency: Time
B. Field
C. Level
D. Family (of occupations)

IV. A. Present Interest Test Status
B. Patterning of Interests (4 categories)
C. Interest Maturity
D. Vocational Independence
E. Realism-Attitudes
F. Patterning of Work Values

V. A. Relationship: Abilities - Preferences
B. Activities - Preferences
C. Interests - Preferences
D. Interests - Fantasy
E. Strong OL - Prof. OL (Occupational level)
F. Accessibility of Preference

In working with 105 boys of a core group in the 9th grade of Middletown, New York, the Career Pattern Study attempted to refine further the indices and factors of vocational maturity. Results were reported in The Vocational Maturity of Ninth Grade Boys, Super and Overstreet, Bureau of Publications, Teachers College, Columbia University, 1960.

According to the authors, the rationale for constructing dimensions and indices of vocational maturity was derived from developmental psychology and in particular from the principles of differentiation, realism and independence. A list of behaviors and characteristics which might constitute maturity of vocational behavior was also derived from literature and counseling experience.

On the basis of intercorrelations among preliminary indices, it was concluded that vocational maturity in the ninth grade consists of a dimension termed Orientation to Vocational Choice Tasks, made up of four adequate indices. (1) Concern with Choice, (2) Acceptance of Responsibility for Choice and Planning, (3) Specificity of Information about the Preferred Occupation, and (4) Specificity of Planning for the Preferred Occupation. Inadequate indices, and the dimensions in which they were classified, were:

Consistency of Vocational Preferences:

Consistency of Vocational Preference within Fields
Consistency of Vocational Preferences within Levels
Consistency of Vocational Preferences within Families

Crystallization of Traits

Degree of Patterning of Measured Interests
Interest Maturity
Liking for Work
Degree of patterning of Work Values
Extent of Discussion about Rewards of Work

Vocational Independence

Independence of Work Experience (on their own)

Wisdom of Vocational Preferences

Agreement between Ability and Preference
Agreement between Measured Interests and Preference
Agreement between Measured Interests and Fantasy Preference
Agreement between Occupational Level of Measured Interests and Level of Preference
Socio-economic Accessibility of Preference

To throw light on the factorial structure of the indices, a matrix of 27 variables was analyzed. Four factors appeared in the indices which had been shown to be adequate measures of vocational maturity in the ninth grade: (1) Planning Orientation - a general factor (2) The Long View Ahead (3) The Short View Ahead (4) The Intermediate View.

The authors concluded:

> "Vocational maturity in the ninth grade, as assessed by our measures, was defined by the findings as behavior in preparation for vocational choice, as planning and looking ahead. The lack of significant intercorrelation among the Consistency, Crystallization, Independence of Work Experience, and Wisdom indices led to the conclusion that, in grade nine, vocational maturity is not characterizable as goal-attainment, as the having of consistent, realistic preferences, nor has having begun to make a place for oneself in the world of work."

Vocational maturity (planfulness) in the ninth-grade boys studied was found to be associated with (1) living in an intellectually and culturally stimulating environment (2) having the mental ability essential to respond to that environment (3) responding to these stimuli by aspiring to occupations at higher rather than lower socio-economic levels, and (4) achieving in one's activities. Vocational maturity in ninth-grade boys appeared not to be related to age within the grade group, to birth order, to religious affiliation, to family aspirations, to acceptance by peers, or to personal adjustment.

Super's distinction between Vocational Adjustment and Vocational Maturity expressed in The Psychology of Careers should be noted:

> "Vocational adjustment may be defined as the outcome of the handling of the vocational development problems encountered by the individual, as compared with the results obtained by others meeting these problems, regardless of his chronological age. It is the result of interaction between the individual's personal resources including his vocational maturity - what he brings to his encounters with reality - on the one hand, and reality demands on the other. Vocational maturity is thus defined in terms of types of behavior, whereas vocational adjustment is defined in terms of the outcomes of this behavior."

Model for Measuring Vocational Maturity.

In an important paper in The Journal of Counseling Psychology, Vol. 8, No.3, 1961, John O. Crites presents warranted criticism of current definitions of vocational maturity and the means of assessing them.

> "One criticism of the definitions of vocational maturity concerns the measurement problem which arises from the use of both typical behaviors and developmental tasks to determine degree of vocational development....neither definition of vocational maturity fulfills the conditions for the measurement of a response-defined concept....Only when individuals handle the tasks of different life stages is it possible to order them on the developmental continuum according to their differential vocational maturity."

Crites proposes a definition of vocational maturity by behavior and tasks in combination with a measurement model derived from a synthesis of age- and point-scales. This, he says would lead to the formulation of two independent, measureable variables: degree of vocational development and rate of vocational development.

> "Degree of vocational development refers to the maturity of an individual's vocational behavior as indicated by the similarity between his bahavior and that of the oldest individuals in his vocational life stage. Operationally, this variable is measured as follows: (1) an individual responds to an inventory of vocational behaviors which differentiate older from younger age groups within a life stage; (2) the number of behaviors endorsed in the same way as the older group constitutes the individual's raw score; and, (3) the higher this raw score, the greater is his degree of vocational development. In this case, the criterion is the older age group. (italics ours)

> "In contrast, rate of vocational development refers to the maturity of an individual's vocational behavior in comparison with that of his own age group. Procedurally, this simply involves the interpretation of a person's raw score according to the appropriate age norms: he is relatively more or less vocationally mature than his peers."

Implications of Studies of Vocational Maturity.

It seems clear that the concept of vocational maturity is still in a state of considerable obscurity! Crites is correct in declaring that current concepts are too elaborate and fuzzy, at least from a measurement point of view. But one good reason for this is, and will remain, the complexity and variety of the subjective events that influence the state of maturity in the individual. As Tyler says: "The most interesting aspects....cannot be expressed in numbers...(they are) clearer qualitatively than quantitatively."

While there will always be necessity to express the idea of maturity in developmental stages as compared with older persons and in terms of maturity status, as compared with contemporaries, there will also be the increasing demand to provide the individual himself with some idea of his progress in terms of the process in which he himself is engaging in his efforts, to reach a satisfactory self-definition and self-situational relationship. It is in this matter of defining maturation of self-process that the current research may provide some useful clues.

III. Relevance of Present Study to Theoretical Frameworks

Research related to the present study may be classified in five broad categories or theoretical systems:

A. Need or Trait Theory
B. Developmental Stage Theory
C. Self-Concept Theory
D. Occupational Decision Theory
E. Self-Situational Theory.

A complete compendium of research in connection with these theories will not be attempted here. Significant studies illustrative of each of the main systems of thought will be touched upon and their relevance to the current study indicated.

Need or Trait Theory.

Illustrative of this category are formulations by Maslow (1954), Roe (1956) and Holland (1958).

In her volume on the Psychology of Occupations (1) Roe brought together the findings from a number of investigations which she and others had been conducting. She attached particular importance to Maslow's arrangement of basic needs in a hierarchy of prepotency, the first being most urgent: (1) physiological needs (2) safety needs (3) need for belongness and love (4) need for importance, respect, self-esteem, independence (5) need for information (6) need for understanding (7) need for beauty (8) need for self-actualization.

Such statements as the following by Roe in the Psychology of Occupations (Pages 319, 320, 321) reflect pretty well many of the central conceptions of needs and trait theorists:

> "The developed individual differences in capacities, interests, abilities, and drives are a product of the genetic differences and experience. The role of experience is particularly crucial in the development of individual differences in interests and drives.....The forms in which drives find their first satisfactions will later be expressed as dominant interests. Drives which are most effectively frustrated will be the ones which will later become dominant motivators, provided that the frustration is not so long continued as to result in their practical expungement.....Individual differences in interests are also related to the timing of the emergence of basic needs, and to the specific environmental situation at that stage. Their variety in the individual will be related to the number and extent of unsatisfied needs or of partially satisfied needs existing at the same time."

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(1) The Psychology of Occupations, Anne Roe, John Wiley & Sons, Inc., New York, 1956

> "It is suggested that (these) emotional situations are effective in implementing the development of certain specific interests and attitudes rather than of others, and that they may also be of real importance in the developing of special abilities as well. Certainly some basic capacity must be present, but this could be so minimal as to be fairly generalized. That is, we could postulate a general plasticity, dependent perhaps upon so direct a thing as the number of neurones genetically present, with its expression directed by emotional needs into particular channels and realized finally as what we have termed abilities and interests."

If vocational direction and ultimate adjustment is a function of deep-seated individual needs, conditioned through early emotional experiences and shaped somewhat blindly through adjustments in the life pattern as the individual proceeds, then it may be inferred that guidance of the individual would have to have a strong clinical flavor both in diagnosis and counseling at crisis - or problem points.

Roe's genotypical approach suggests early fixations of dominant needs which somehow find their outlets in occupational "groups" and "levels" through life experience, particularly emotional experience. One implication seems to be that guidance would have to find means of discovering dominant need and trait patterns in individuals and relating these to appropriate occupational fields where the personal patterns might find their most satisfying outlets. The researches and theories of John Holland are an extension of this conception.

As reported in The Journal of Counseling Psychology, Vol. 6, No. 1, (1959) Holland's theory is that of a hierarchy of habitual adjustment modes in the individual, representing a distinctive life style, and comprising preferred methods of coping with daily problems, assimilated values and interests, preferences of playing various roles and avoiding others, combinations of interpersonal skills, etc. The various orientations of adjustment in people may be ranked, according to their relative strengths, in an order or hierarchy. The life style heading the hierarchy determines the major direction of choice. Major occupational environments may be expressed in the same terms as the adjustment modes and represent vocational fields providing satisfactory differential settings for their corresponding adjustment mode patterns.

One of Holland's most recent statements of theory follows: (1)

> "The theory assumes that at the time he chooses a vocation, a person is the product of his heredity and a variety of cultural and personal forces including peers, parents, and other significant adults, social class, American culture and physical environment. Out of this experience he develops a hierarchy of orientations for coping with environmental tasks (the patterning of personal orientation). From an ecological standpoint, these orientations are associated with characteristic physical and social environments and with characteristic patterns of abilities. The person making a vocational choice in a sense 'searches' for those environments which are congruent with his personal orientations.
>
> "In our culture, six types of people have been identified to represent the characteristic patterns of personal development: Realistic, Intellectual, Social, Conventional, Enterprising and artistic. For each type, a theoretical model, the model orientation, has been proposed. The model orientation is a theoretical complex consisting of coping mechanisms, personal traits, vocational and educational goals, life histories, aptitudes, and other attributes."

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(1) Excerpt from manuscript of an address by Holland at the annual convention of the American Personnel and Guidance Association, Denver, Colorado, March, 1961.

Theory of Developmental Stages and Tasks.

Ginzberg and associates outlined a theory of three developmental stages in vocational development in 1951 (1), referred to in the previous section. The stages were: (1) fantasy (2) tentative choice (3) realistic choice. The period of tentative choice is a crucial one and, according to these authors can be divided into four stages:

(1) Interest stage (11-12 years of age): choices are made primarily in terms of likes and interests.
(2) Capacity stage (13-14 years of age): individual becomes more aware of need to introduce realistic elements into consideration, to consider capacities objectively, and to learn about external factors (occupational facts).
(3) Value stage (15-16 years of age): a place for the self in society is sought, recognition occurs that many elements must be synthesized, realization that the individual must assess a whole range of factors significant for choice and evaluate them in light of own goals and values which must now be formulated and clarified.
(4) Transition stage (17 years of age): transition from school to either work or college.

> "This period (the tentative choice period) can come to an end only when the individual reaches the conclusion that he finally has a clear insight into himself; that he understands the major aspects of reality, at least those aspects which he must take into account when making a final decision; and lastly that the image of himself in the future is reasonably firm. (p. 68).

> "These stages (the four stages in the period of tentative choice) typify the changing approaches of the young person as he matures. If the process depended solely on maturation, however, there would probably be a much greater variation among individuals, both in the emergence of these several factors and in the effectiveness with which they are handled. But the adolescent lives in an environment of external as well as internal pressures, and the environment also conditions the rate at which he acquires knowledge about himself and about reality. The school exercises the greatest pressure toward uniformity in development. In many instances, the school tends to retard individuals who might otherwise develop intellectually more rapidly; it also exercises a positive compulsion on all to take specific actions at stated times. As the adolescent nears the end of his high school career, he can insure that he will

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(1) Occupational Choice: An Approach to a General Theory, Eli Ginzberg and Associates, Columbia University Press, 1951

> be able to continue his education only by taking the courses required for admission to college. And long before this, the school has confronted him with alternatives that will influence his future." (p. 76)

Tiedeman and associates, in their Harvard Studies in Career Development, beginning in 1956, accepted Super's stages in their general outlines but emphasized that vocational development occurs within and through a set of decisions. To quote Tiedeman: (1)

> "The analysis of voational development is oriented by each of several decisions with regard to school, work, and life which a person makes as he matures. With regard to each decision, the problem of deciding may be profitably divided into two periods, or aspects, a period of anticipation and a period of implementation or adjustment.
>
> "Anticipatory behavior may itself profitably be analyzed into subaspects or stages. Relevant stages are those of exploration, crystallization and choice. During exploration, activities are somewhat random and likely to be overly acquisitive. As patterns begin to emerge in the form of alternatives and their consequences, we speak of crystallization. Finally, with clarification and commitment, choice occurs and the person begins to organize to implement his choice."

As Tiedeman does in the above excerpt, developmental stage theorists introduce typical tasks usually performed at different stages of progress toward ultimate choice and adjustment. These permit comparison of the individual's performance at any one of the stages with that of other individual's at the same stage or age.

If need theory tends to stress the paramountcy of unconscious motivations and drives in occupational choice and development as well as the presence, in the chooser, of unarticulated stereotypes, developmental stage theory stresses common stages of vocational development through which all individuals pass and the relations of these stages to external demands of school, work and life. Subjective considerations are, of course, not neglected in theories, witness Ginzberg's "fantasy-reality" dimension and Super's "self-concept".

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(1) "Problems in the Investigation of Vocational Development: A Paradigm of Decision and Its Implications", a paper presented by David V. Tiedeman, April 14, 1960, National Vocational Guidance Association., Philadelphia

In application of theories to guidance practice, it will make considerable difference, however, whether one is concerned with a form of educative process which would aid progressive induction of the pupil into the stage of "realistic choice" largely through provision of information as would Ginzberg (1), whether one would attempt to evaluate the self-conceptual stage of the individual and to help him to "maturity" by fostering "planfulness" as might Super (2), or whether one would simply let typical growth patterns proceed through common developmental stages, letting "nature take its course", so to speak as, in effect, most guidance programs now do with respect to the pupil who "has no problems".

Self-Concept Theory.

Deriving much of their original impetus from the work and formulations of Carl Rogers and disciples over a period of years, the self-conceptualists have given major, though not exclusive, emphasis to the influence of the self-concept in vocational choice and adjustment. Perhaps the clearest and most succinct statement of this theory has been made by Donald Super in his Psychology of Careers previously mentioned:

> "In choosing an occupation one is, in effect, choosing a means of implementing a self-concept. (p. 196).
>
> "Vocational guidance is the process of helping a person to develop and accept an integrated and adequate picture of himself and of his role in the world of work, to test this concept against reality, and to convert it into a reality, with satisfaction to himself and benefit to society." (p. 197).

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(1) "Guidance - Limited or Unlimited", Personnel and Guidance Journal, May, 1960.

(2) The Vocational Maturity of Ninth Grade Boys, Donald Super and Phoebe Overstreet, (Chap. IX) Teachers College, Columbia University, 1960.

In his excellent paper "Theories of Occupational Choice and Guidance", delivered at a meeting of the American Psychological Association in Chicago, September 3, 1960, Martin Katz of the Educational Testing Service summarizes self-concept theory as follows:

> "The multi-potentiality of the individual suggests that early specification of his 'final adult occupation' is relatively unimportant, that actuarial data interact with existing concepts to shape hypotheses about self that are subject to reality-testing; that this reality-testing can often take place within the context of immediate educational decisions, can thus be confirmed, corroborated, modified, or revised, with various effects on long-range tentative goals or plans; that experience can thus effect a series of reintegrations of self-concept -- so that inconstancy of verbalized occupational preference will not be unexpected."

Here Katz rightfully points a finger at the central cognitive orientation of self-concept theory and, by implication, on the educative character that guidance would have to assume to affect self-perceptions favorably through interpretative counseling and in other ways.

A related inference suggested by self-concept theory in general is that emphasis should be less on the diagnosis of unarticulated needs or traits in the individual (as presumably it would be in need and trait theory), or on the maturational effects of natural and typical stages of growth interacting with external demands (as in developmental stage theory) but rather on the self-perceptual core of the ego-function where the characteristics that the individual associates with the self are relatively conscious and where planning and learning can occur on the level of cognitive awareness. It has considerable importance in practice whether the counselor stresses the significance of the self-concept and tends to work primarily in those terms, or whether, to move toward an opposite pole, he perceives the demands of the educational or occupational environment as of paramount significance and tends to concentrate attention on such things as the collection and dissemination of vocational information.

Occupational Decision Theory.

A separate category must be devoted to this brand of theory because of the work and writings of Tiedeman, Tyler, Katz, Mahoney and others.

Tiedeman's statement about the significance in his own theory of "sets of decisions" (previously quoted) and the sub-phases of (a) anticipation of decision and (b) implementation of decision echo to some extent the beliefs of Leona Tyler (previously quoted) who has, for some time, conceived of the process of vocational (or even personal) development as falling within a series of choices to which the individual devotes himself and in which he denotes himself, and, in so doing, commits himself to a round of experiences that flow from the choice. In a sense, a theory of decision-making in occupational development makes for more clear-out operations in limiting consideration to those factors that are most visible, most easily understood and controllable within a definite zone or area of choice dealing with forseeable events. A developmental chain of events thus unfolds in which the individual, after a point, might have a narrowing line of possible choices as successive decisions were made.

The focus of "decision theory" is expressed rather well by Martin Katz in the paper already referred to in which, among other things, he attempts to provid the rationale for the formulation and use of the school workbook You: Today and Tomorrow:(1)

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(1) You: Today and Tomorrow, a workbook for secondary school students, published by Educational Testing Service, Princeton, New Jersey, which has been experimentally used in a number of schools.

> ".....You: Today and Tomorrow attempts to focus on the pupil's immediate curriculum decision, both for its direct effect on later choices and for its value as a paradigm in decision-making ......We know that this curriculum decision has some direct bearing on adult occupations. It tends to expose pupils to some influences and shut them off from others. It tends to narrow the range of alternatives and opportunities which may be available to them at future choice-points. In short, it tends to hold some doors open and to close others.....In their choice of a high school curriculum, then, eighth and ninth graders are in effect making highly specific decisions 'for next year' simultaneously with tentative plans for more distant choice-points. It is evident that these choices - specific and tentative, immediate and long-range - interact in a complex way. As Ginzberg concludes, wisdom in this current decision seems to require a combination of planning and flexibility."

In his more general theorizing, Katz goes considerably beyond this rationale for the workbook "You: Today and Tomorrow" as we shall later see but in this particular passage he depicts most clearly the underlying concept of occupational decision theory.

Self-Situational Theory.

First mentioned in Guidance Policy and Practice (1) in 1950 and extended in later editions in 1957 and 1962, self-situational theory was originally based on the findings of evaluation studies of counseling done at the Harvard Guidance Center from 1945 to 1949 (2). It has subsequently been refined and expanded somewhat as the result of research in vocational development and related fields, including that conducted by the author and associates at The City University of New York.

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(1) Guidance Policy and Practice, Robert H. Mathewson, Harper and Bros., 1949, 1955; Harper and Row, 1962 (third edition).

(2) "A report on Guidance Center Operations", Robert H. Mathewson, The Guidance Center, Harvard University, 1949.

Based to a considerable extent on field theory, self-situational theory synthesizes many of the main features of ego and dynamic psychology, trait theory and perceptual theory in attempting to formulate an adequate conceptual framework for guidance practice centering upon the individual-in-situation. Among other aspects, this theory does not have a sole focus either in the self-concept, nor in environmental data, or factors, but, as its label suggests, tends to stress the importance of the immediate and long-term relations between self-and-situation.

The most recent statement of self-situational theory is that made in the third edition of Guidance Policy and Practice, 1962:

> "The self-situational field of the individual may be visualized as an infinitely complex internal-external pattern of dynamic events, all interconnected and interacting in constant flux along a time dimension. Internal phases or subjective aspects in the self-system may be thought of as force-fields some of which may be rather firmly fixed (genotypical traits) while others are much more pliant and alterable."

What distinguishes self-situational theory as applied to vocational orientation and development are the following ideas:

1. The pre-eminence of the person in the center of the self-situational field, his power to perceive, judge, act and evaluate consequences of his actions within the 'field' of his limited powers.
2. The importance of relational connections and modes of interaction between self and situation which are affected by all forces in the field, personal and social, subjective and objective.
3. Stress on the dynamic (as against the static) nature of the self-situational field and the possibilities of alteration and change, both internal and external.
4. Accent upon the psychological as against other aspects and phases of the field.
5. The developmental potentialities of both self and situation through exercise of individual and cooperative social effort.

6. Relation of developmental possibilities to the field of education and guidance and to associated professional endeavor.

7. The paramountcy of individual consciousness and ego function in the center of field forces.

Perhaps the theory is best summed up in this tentative generalization:

> "On the basis of an apprehended relationship of internal-external forces and conditions, the individual will attempt to act, decide, and direct himself in a manner, and upon a course, estimated to affect most favorably the self-situational relationship as the individual appraises it."

Self-Situational Theory places great emphasis on the possibility of forming, through cognitive processes as related to other subjective processes, in an educative form of individual and group guidance over time, an adequate, congruent and satisfactory self-situational accommodation. The theory stresses experience but, above all, an evaluation and interpretation of individual experience under guidance

Before concluding this section we may take another quotation from Katz's paper (already referred to) since it expresses so well some of the implications of self-situational, or developmental theory, for guidance and educative practice:

> "....the major bulk of the research in guidance has been devoted to prediction. Yet it has been recognized that we can never -- nor do we really want to -- predict the future of individuals with any great degree of confidence. We can discern broad relationships between attributes and events, but we find it hard to defend perpetuating these relationships as they are or refining them into a more precise scheme. As Muller has said, 'uncertainty is not only the plainest condition of human life but the necessary condition of freedom, of aspiration, of conscience - of all human idealism.' Probably the only way in which prediction can be radically improved is through control of choices or outcomes.
>
> "But guidance shuns such control. We cannot-nor do we want to-control the future. Democratic values inspire in us too much humility (concerning our own omniscience) and pride (in human capacities for self-determination) to tolerate authoritarianism. We don't know what will be best for the individual or for society except freedom to work things out. We are suspicious of certainty--to quote Muller again, 'pretensions to absolute certainty...are the

> ultimate source of corruption, the reason why the best becomes the worst and crusaders for heaven make a hell on earth.'
>
> "Yet, we are not reconciled to ignoring the future. We don't know what the content of any individual's ultimate choice should be and we don't feel comfortable about directing him by our own best judgment of what it should be. But we do think we can help him in the process of choosing."

Classifiable also in this category of theory seems to be the set of conclusions reached by Beardslee and O'Dowd in their studies of college students, reported in The American College. They studied occupational stereotypes held by college students and "the images with which students operate in their approach to the career world."

They found that college students possess very general stereotypes for occupations but that:

> "the career orientations of men change during the four years of college under the impact of the differential demands of alternative academic programs, financial barriers to graduate training, changing interests, and other pressures. These changes suggest that many young men must alter their goals to more modest levels and that they must form an identity around different images and models (italics ours). This is of necessity a painful but often maturing process for many of the most highly talented members of our society.
>
> "In general, by seeking to nurture in students personal attributes that will strengthen their claim to an independent identity, we may be able to lessen their dependence upon packaged occupational personalities and increase their ability to see themselves capable of creating a place in the occupational structure for their special combination of capacities."

Current Study as Related to Previous Research.

Although centered mainly in Self-Situational theory, the current study has relevance to other theoretical frames just described:

Evidences of the functioning in the individual of need, motivational and other trait systems, it was postulated, might be drawn forth in protocols produced by individuals responding to a projective-type instrument.

It was also surmised that protocols of a sufficient number of students of different grade levels, sexes, social classes, etc., might reveal characteristic developmental patterns associated with differences in age or other factors.

It seemed probable that protocols from respondents would reveal a good deal about the nature of their self-concepts.

These postulates seemed to be borne out to a considerable extent in protocols produced by high school pupils in preliminary pilot studies.

In contrast to many other studies known to the authors, the current project may be characterized by the following distinguishing features:

1. The research instrument employed in the study was designed to be more elicitative than diagnostic in character and to be more favorable for pupil involvement and participation.
2. Protocols resulting from administration of the instrument were seen as "nets" which might contain many diverse clues as to the character of vocational imagery in rather free association among high school adolescents thus providing, hopefully, a rich haul of subjective contents for inductive analysis.
3. Pilot studies had shown a sufficiently rich variety, differentiation and range of imagery as to suggest strong possibility that protocols might also be utilized for the extraction of factors relating to vocational maturity.
4. In accord with previous considerations, the instrument itself as well as any resulting scale of maturation were perceived always as applicable in a test of the feasibility and practicability of a developmental form of guidance practice.

CHAPTER III

PROCEDURE

Procedures followed in the study are described here under the following four major headings:

I. Development of instrument for eliciting vocational imagery.
II. Development of maturity scale for evaluating student protocols.
III. Correlation of maturity assessments with school data.
IV. Interviews with students.

The major work in developing an instrument to elicit vocational fantasy was along the lines of modifying somewhat the semi-projective questionnaire used in previous pilot studies, entitled What I Think About Myself.

The main strategy in developing a maturity scale was to have a number of judges draw up and apply lists of dimensions of vocational maturity; to collate these dimensions to form a rough scale (SCALE I), to combine this with "modes of process expression" to create a more comprehensive maturity scale (SCALE II); and to refine this further (SCALE III).

I. Development of Instrument for the Elicitation of Vocational Imagery.

Study of Previous (Pilot) Experience.

Prior to the present research project, the original instrument, a semi-projective questionnaire entitled What I Think About Myself ("Model Number One"), was administered in four parts to the following students in public schools in the New York City metropolitan area: in 1957, to 231 boys and girls in 10th, 11th and 12th grade English classes at Andrew Jackson High School in Queens, by a teacher-counselor at that school; and in 1960, to 50 girls in 9th grade guidance classes at Hunter College High School in Manhattan, by two counselors at that school.

In the period 1958-1961, preliminary analyses were made (when time was available) of both sets of above protocols in terms of content and process of vocational tendency, psychological mechanisms displayed, and possible factors indicative of maturity or immaturity. A special report was made of the preliminary project conducted at Hunter College High School.

The initial step in the present research project was to analyze the protocols so gathered, from the point of view of the significance of their content in relation to the purpose of the questions asked in the instrument. This was followed by a study and evaluation of the procedures used and the problems encountered in administration.

Modification of Original Instrument and Procedures for Administration.

Following this analysis of previous experience, modifications were made in the original instrument and in the procedures for administration. "Model Number Two" was constructed, a revision of the original four-part instrument. "Model Number Three" (Appendix A) was created, consisting of a single part.

Administration of Revised Instruments.

The modified and newly constructed questionnaires were administered to 211 students in three public schools in the metropolitan New York City area as follows:

Model Number Two was administered in four parts at separate class sessions to the following students: to 108 boys and girls in 8th grade guidance classes at The Highlands School in White Plains, New York, by a teacher-counselor at that school; and to 59 boys and girls in 12th grade English classes at Andrew Jackson High School, by the teacher-counselor at that school who had conducted the initial administration in 1957. In addition, the Research Associate of this project conducted a follow-up session with each class after the final administration of the questionnaire. In both classes the four administrations and the follow-up were tape recorded and subsequently transcribed.

Model Number Three was administered in one session to 44 girls in 11th grade guidance classes at Hunter College High School. Two years previously these students had filled out the original questionnaire.

Analysis of Protocols and Evaluation of Instruments and Administration.

In assessing the general effectiveness of the instruments, the protocols were analyzed from the following points of view:

1. Authenticity--genuineness of personal disclosures.
2. Variety and Comprehensiveness--extent of personal disclosures.
3. Meaningfulness--applicability of personal disclosures for developing self-understanding and judging maturity.

The content of protocols was also analyzed in terms of the effectiveness of specific questions, and of the relative merits of the two models.

The procedures used in administering the instruments and in dealing with questions and objections raised by students, were carefully assessed in the light of the taped recordings of student reactions and reports by administrators.

Construction of Manual for Administration, and Further Experimental Forms.

On the basis of the experience and analysis described above, further revisions were made in the instrument and administration. A Manual for the administration of Model Number Two was constructed. This Manual contains explanations for students designed to gain their cooperation, and instructions to administrators and information about the difficulties which they are likely to encounter. And five further experimental forms were created for future try-out.

II. Development of Maturity Scale for Evaluating Student Protocols.

Efforts were made to create several kinds of scales to assess maturity. Two kinds were attempted and not further developed. A third kind was attempted and subsequently incorporated into the fourth type of scale--the major one which was developed and repeatedly refined.

Forms of Scale Attempted but not Further Developed.

1. Q-Sort.

Short statements which could be dealt with as Q-sort items, were extracted verbatim from protocols. Three judges attempted to place these statements on a continuum from "immature" to "mature." A comparison was made of the placements by judges.

Following are examples of Q-sort items:

> "The only thing I felt was the desire to please everyone I worked with and above all the person I worked for."
>
> "When thinking of what I want to be, I often get a feeling that I will be a failure in the world."
>
> "I never really picture myself in a career situation often except marriage and romance. If I do have any such pictures they are never very clear."
>
> "I felt proud of the work I was doing. At times I felt frightened, but usually I felt thrilled to be in a position that's lively and adventurous."

2. Global Self-Situational Scale.

An attempt was made to construct a maturity scale based upon global concepts of Self and Situational relationships, rather than upon specific, atomistic variables or modes of expression.

Form of Scale Attempted and Later Absorbed into Major Form of Maturity.

Scale: First-Order Inferences.

In an approach to content analysis of protocols directly from contents as given, "modes of process expression" were extracted from protocols (Appendix B) These modes represented first-order inferences as to the meaning of typical protocol statements. Following are examples:

> "Reveals drive toward occupational achievement." "Reflects vague, stereotyped notions of occupations." "Realizes changes of mind and fluctuations of interest."

In an attempt to develop a rating scale, the modes of process expression were organized under four major categories and 11 sub-categories, each of the latter on a continuum. (Appendix C).

Major Form of Scale.

1. SCALE I.

Five judges with backgrounds in psychology and counseling, were selected. Each was asked to draw up, independently of the others, a comprehensive list of possible dimensions of vocational maturity and immaturity.

A random sample of 10 male and 10 female protocols obtained from a previous pilot study, was rated by each judge independently on a five-point scale ranging from immature to mature. Each judge applied his own criteria, which he revised as he assessed the protocols.

Agreement among judges on ratings of the 20 protocols, was computed. In conferences among the judges, ratings were compared and reasons for assigning particular maturity ratings were discussed and clarified. As a consequence, some judges further revised or elaborated on their dimensions of maturity.

The five lists of dimensions were further analyzed, and were combined into a single tentative maturity scale comprising 31 sub-categories in four major areas. This was designated "SCALE I" (Appendix D).

2. SCALE II.

Using as a basis both SCALE I and the "modes of process expression" which represented first-order inferences, a new and more comprehensive scale was constructed. This consisted of eight fundamental modes or factors, each pertaining to (a) the Self (b) the Vocational Situation and (c) the Relation of Self to Vocational Situation. The factors were arranged in order of movement toward a positive integration of Self-Situational factors--that is, toward a mature vocational outlook. This was designated "SCALE II" (Appendix E).

Typical examples were extracted from protocols of each of the eight fundamental modes or factors, with the exception of the final or most mature mode, "Integration" of which no examples could be found. Within each mode, illustrations were classified under (a) the Self (b) the Vocational Situation (c) the Relation of Self to Vocational Situation (Appendix F).

Eight judges were selected and asked to apply independently SCALE II to a second sample of 10 male and 10 female protocols obtained from a previous pilot study. A seven-point rating scale was used, ranging from "Present, Negative" through "Absent" to "Present, Positive" which included five points from immature to mature (Appendix G).

Agreement among judges was computed.

In conferences the judges compared ratings and discussed and evaluated the rating process and the criteria in the present scale. They made suggestions for further revisions.

3. SCALE III.

Certain changes and refinements were made in SCALE II. The resulting SCALE III contained seven fundamental modes, each again pertaining to (a) the Self (b) the Vocational Situation and (c) the Relation of Self to Vocational Situation. Statements in the scale were so phrased that quantification of degrees of maturation on each mode and on the entire protocol could be attempted.

Three judges applied the maturity scale to a third sample, this time consisting of 20 female protocols. A five-point rating scale was used, ranging from immature to mature.

Inter-judge agreement was computed.

The judges evaluated the present scale and made recommendations for further refinements.

III. Correlation of Maturity Assessments with School Data.

Samples of available school data pertaining to the students were gathered and processed to test out alternative IBM systems.

A code was constructed for classifying relevant academic, personal and social data for IBM processing.

Data were obtained directly from the students, from their school records, and from their advisors and guidance counselors.

Because the first two samples of 20 protocols each which were rated by judges came from the same school (Andrew Jackson High School), it was possible to combine them. Correlations were computed between maturity as assessed by judges according to their own criteria and according to SCALE II, and the following factors as procured from school records: (a) age (b) sex (c) academic achievement (grades) (d) social level of family, based largely upon occupation of father and mother (e) mental level (IQ) (f) type of curriculum (g) achievement tests (h) citizenship ratings by teachers (i) number of extra-curricular activities participated in. Because records of 2 students were not available, the total number involved was 38--18 boys and 20 girls. On some factors the number was smaller because of lack of data. The maturity ratings of judges were transformed into standard scores in order to insure comparability.

IV. Interviews with Students.

Short focused individual interviews were held with 10 of the students in the third sample of protocols which were judged. The interviews were tape recorded and subsequently transcribed. The purposes were to provide a comparison between statements written on the questionnaire by students and their verbal statements on the same topics; and to gain insights into characteristics which differentiate mature from immature adolescents.

A series of interviews was held with each of two high school students over a period of three months, in order to examine some of the underlying dynamics of making or refusing to make a vocational choice. One boy was interviewed five times, the other six times. These interviews were taped and transcribed. The mothers were also interviewed. The interviews were analyzed in terms of the eight modes of SCALE II.

CHAPTER IV

ANALYSES OF THE DATA AND FINDINGS

Results of the study are here presented and analyzed under four main headings:

I. The instrument for eliciting vocational imagery and its administration.

II. The Maturity Scale for evaluating student protocols and interviews.

III. Correlation of maturity assessments with school data.

IV. Some qualitative results.

I. The Instrument for Eliciting Imagery

Original Purposes of the Instrument.

In assessing the effectiveness of the instrument itself, it will be desirable to summarize briefly the purposes for which the instrument was originally devised. These aims were:

1. To involve pupils by a semi-projective stimulative device which would generate their interest and elicit authentic subjective material associated with vocational outlooks.
2. To evoke vocational imagery that would:
    - (a) have more significance than that usually obtained in autobiographical compositions or essays, or in vocational preference questionnaires and the like.
    - (b) incorporate subjective material relating to personal need propensities, values, interests, aspirations, attributes of the self-concept, and other personal dynamisms associated with educational-vocational orientation.
    - (c) contain clues as to the characteristics of the formative process in the development of vocational outlooks among secondary school youth.

(d) supply indications of possible stages of differential development according to age, grade, and other factors.

(e) provide indications of factors or dimensions associated with "maturity" or "immaturity" of vocational outlook.

In a pilot study prior to the current project, 231 protocols obtained from administration of a trial instrument had brought out data which seemed authentic, rich and meaningful and which displayed great individual variety. The current study also evoked material of a similar type. Results were more mixed, however, and more difficult of appraisal and analysis. The contents of protocols were still individually differentiated but seemed to vary in groups according to method and content of administration, form of instrument used, school level participating, time of the school year, kind of institutional press then prevailing, etc. These consequences called for proposed alterations in structure, administration, etc. to be described later.

In spite of its "sensitivity" to external conditions, however, the instrument drew forth a wide range of useful and differentiated protocols. More than two hundred individual youngsters in three secondary schools on three grade levels responded to experimental forms of the instrument, providing, in all, 440 protocols from boys and girls of varying ages, mental levels and social backgrounds.(1)

General Assessment of the Instrument.

Evaluation of the effectiveness of the instrument was made by project staff members and collaborating school counselors in terms of kinds of protocols produced and the reactions of high school students to whom the instrument was administered. Thus the evaluation was "functional" in that it represented professional judgments of the comparative workings of the instrument in various school settings.

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(1) Including protocols from the preceding pilot study as well as the current project.

In general, it was definitely felt that the instrument fulfilled the projected purposes. The following conclusions comprise somewhat more detailed findings as to the characteristics and operational effectiveness of the instrument itself:

1. The approach seemed to interest and stimulate many youngsters on the secondary level to liberate significant material about their vocational outlooks that probably would not be elicited in any other way, at least in a group setting.

2. In many youngsters the contents of protocols seemed to be free and authentic; in some cases more contrived and less genuine output was apparently evoked.

3. In the richest protocols, a range and depth of content was produced which discloses dynamisms underlying vocational outlooks and tendencies among secondary school youth, - including fantasies, stereotypes, values and integrations of outlook.

4. As a corollary to its administration, the instrument tended to bring out many questions about vocational direction which can be utilized effectively by counselors, both for group discussion and individual interpretation.

5. Outcomes of instrument administration and response led naturally into individual interviewing, consultation and counseling, with fruitful possibilities for guidance in continuing sessions.

6. Both in the protocol responses, as well as associated group and individual sessions, ample indication was afforded of the great need for bringing out material of this kind as one means of inducing youngsters to think about vocational directions.

7. Considerable variation in readiness and receptiveness was shown among pupils in different levels and institutional settings. In a minority of students, this type of approach seems to arouse suspicions as to intentions, feelings of infringement on privacy, latent conflict with parental authority, anxiety concerning vocational choices and planning. While some of these conditions may be the result of inadequate preparation for administration of the instrument, it must be concluded that they may remain as latent possibilities in some situations.

8. The need was revealed for the orientation of counselors, teachers and pupils as to purpose of the instrument prior to its administration for maximum effectiveness.

As indicated in the above items, sufficient evidence was gained of the evocative, stimulative, educative and research value of the instrument to warrant further trials of this general approach (together with like forms) in school practice.

However, it was revealed as desirable, in the course of the year's investigation to explore the possibilities of different types of similar instruments. Throughout the year, the original instrument, with minor variations, was accepted as a promising basic model. Limited modifications were attempted in ways such as alteration of words, rearrangement of sections, etc. to produce meaningful protocols when appropriately administered.

In later analyses of tape-recorded group sessions with high school youngsters as well as interview periods, questions emerged which indicated a need for more far-reaching modifications of the instrument while retaining its essential projective, or semi-projective, character. Thus further experimentation is suggested with instrumental forms which might provide insights (for both self and mentor) into such aspects of individual vocational outlooks as the following:

Process of formation of outlook.
Process of integration or crystallization.
Attributes of past images in relation to current outlooks and future aspirations.
Dominating influences (subjective and objective) in the formation of the outlook.
Need tendencies present, value factors, etc.
Self-estimates of authenticity and genuineness of images produced.
Major themes present in successive protocols as judged by the subject himself.

Specifications of Effective Instrument (as derived from project experience).

On the basis of comparative data, procured through trials of various types of instrument in different school settings, a formulation may be made of the essential specifications of a functionally good instrument and of the conditions which would have to accompany its administration:

1. The psychological setting for the administration of the instrument must be carefully prepared through orientation sessions explaining purpose of the approach, what the instructions signify and what is wanted. Cooperation should be straightforwardly solicited.
2. Wording of the instrument must be simple, direct, suitable for grade level on which administered, comprising projective-type stimuli, and elicitative of both cognitive and co-conscious contents relating to self-concept, vocational tendency, value attributes, need complexes, synergistic processes and characteristics of the emerging life-style or pattern.
3. A sequence of instrument "exercizes" should be incorporated which will pick up aspects of individual images or outlooks at intervals sufficiently long so that evidences of different aspects of process, shifting ideas, stimulative effects, variations in dynamism, perseveration of tendency, etc., etc., may be gleaned.
4. Provision should be made for coordinate individual and group sessions with subjects in order to answer questions, deal with emerging problems, provide individual interpretations, etc.
5. Supplementary instruments and/or interviews should be developed as (a) correlative checks on content of the imagery instrument itself (b) productive media for exploring such avenues as: "reasons for" outlooks as displayed in original experiment; insights into formative process of self-definition; authenticity of tentative crystallizations, etc., etc.
6. A coordinate "Maturity Scale", or similar evaluative device, should be developed and utilized to provide both subjects and counselors with some basis of assessing progress of outlook.

Form and Content of the Instrument.

On the basis of the analysis of experience in previous pilot studies, a new modified form was constructed and tried out ("Model Number Three," Appendix A).

The purpose was to investigate the possibility of eliciting somewhat broader, freer kinds of responses through less structuring. The new form asked generally about the future, instead of specifically about occupations. It also omitted the terms "picture," "scene" and "image." The questionnaire began, "What do you suppose the future holds in store for you?" and repeated this in various phrasings in five short paragraphs.

It was administered to 44 Hunter College High School 11th grade girls who had filled out the original questionnaire two years previously. A comparison of the new protocols with those derived from the original and revised instruments (Models Number One and Two) at the various schools, showed that in general:

1. The modified form provided more indications of vocational indecision. Students seemed to feel freer to express doubt in this area.
2. Students filling out the revised form wrote about the kind of life they hoped for, but usually did not mention the vocational and career steps needed to achieve this.
3. The new form provided an estimate of future time orientation, which did not appear so clearly on the other questionnaire.
4. The original instrument elicited more concrete, detailed images of the student in a work or career situation. These tended to possess a "real" quality.
5. The original form achieved a somewhat deeper involvement of students. Images usually went beneath the surface. Students were less likely to react superficially or without emotional participation. They seemed to be "in" the fantasied situation rather than just writing about it.

For the remaining administrations during the year the original questionnaire was used, after the wording in Part II was changed to permit filling out in class (see discussion below). The revised instrument used during the year is reproduced here.

WHAT I THINK ABOUT MYSELF

An Experiment in Psychology

in Four Parts

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Produced and issued at:
The Division of Teacher Education,
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535 East 80 St., New York 21, N.Y.

WHAT I THINK ABOUT MYSELF

Part I

People think about themselves in different ways at different times. Sometimes we imagine ourselves in various places and we see "pictures" in our minds of ourselves in those situations. What we "picture" to ourselves in these ways really tells us a good deal about how we think and feel about many things.

For instance, a boy has a picture of himself building a bridge in a foreign country. He is responsible for all the construction work. A girl imagines she is caring for a sick person in a large hospital where she helps the surgeon in this professional work.

These are both "pictures" (images) that tell us something about what kind of careers this boy or girl may wish to follow.

We would now like you to try this experiment........................

WHAT PICTURES DO YOU HAVE OF YOURSELF?

1. How do you "picture" yourself in a career, job or occupation? What are some of the scenes you have imagined lately that have to do with the career you might like to follow? Choose one of these scenes (pictures or images) and describe it below. IT DOES NOT MATTER WHETHER THIS SCENE AGREES WITH YOUR PRESENT VOCATIONAL CHOICE OR NOT — JUST DESCRIBE THE PICTURE AS IT CAME INTO YOUR MIND. AND DO NOT PUT ANYTHING IN YOUR DESCRIPTION THAT YOU DO NOT ACTUALLY "SEE" OR "FEEL".

Now fill in the next two blank spaces:

1. When I pictured myself in this career situation, this is what I "saw":

2. And when I was imagining this scene, this is how I felt:

WHAT I THINK ABOUT MYSELF

Part II (revised)

In the first part of our experiment, you told about a scene where you pictured yourself in some type of work, career or occupation. And you told "What you saw" in your mind's eye and "How you felt about what you saw." Since then you may have pictured yourself in a different kind of situation. What we want you to do now is to describe any recent idea you may have had about a career or work interest. Please try to remember distinctly what the "picture" was all about and how you felt when you were imagining it. Or maybe a new picture will come to your mind now. Remember: This scene does not have to be "in line" with your present vocational interest. Just describe the picture as it comes into your mind -- do not put anything in your description that you do not actually see or feel.

1. When I picture myself in this career situation, this is what I saw:

2. And when I was imagining this scene, this is how I felt:
   (write on the back of this sheet)

WHAT I THINK ABOUT MYSELF

PART III

We have now come to the third part of our experiment on "What I Think About Myself". Since you already have some practice, this should be the easiest one of all. While you have been taking part in this experiment, you have probably had quite a few "pictures" of yourself in various kinds of job, career or work situations. Some of these images may have been stronger or clearer than others. Or one of them may have occurred oftener. Or you may have thought that one of them was really important for some reason.

Now this is what we want you to do this time: Pick out one image from the many you may have had. Choose a "picture" that was for you a "Stand-out". Then for this one image or scene, again fill in the two blank spaces as you did before:

1. The "Stand-out" situation where I pictured myself in this career job was like this:

2. And this is how I felt at the time I was "picturing" this situation:

A-5

WHAT I THINK ABOUT MYSELF

Part IV

Now we arrive at the fourth and final part of the experiment. You have already told us about various "pictures" you have had of yourself in job and career situations. We would now like you to put down some of the things that you think about yourself. Just list down some ideas you have about yourself, such as, maybe: "I'm a good athlete" or "I think I'm a little clumsy" or "I like most everybody." There are many of these ideas that you may have about yourself from time to time. Please list below those you seem to have most often:

1. **Ideas I often have about myself:**

2. **Feelings I often have:**

Construction of Experimental Forms.

On the basis of experience with the forms described above, five experimental forms were constructed for future try-out.

1. Experimental Forms Number One and Two were designed to follow in sequence the form described above (Model Number Three). There is a definite movement in the three forms from lack of structure, to structure. Part I of this sequence (Model Number Three) asks about the future but does not mention occupations. Part II (Experimental Form Number One) asks about occupational preference, but without respect to reality considerations such as ability. Part III (Experimental Form Number Two) asks the student about the vocational choice he is actually likely to make. Awareness of discrepancies between the latter two fantasies would be of value to both teacher-counselor and student. The sequence of forms should elicit both broad, spontaneous responses and specific data in the vocational area.

2. Experimental Form Number Three is essentially Part I of the original instrument, with "idea" substituted for "picture", "image" and "scene". The purpose is to ascertain the extent to which requests for such visual imagery, elicits meaningful material.

3. Experimental Forms Number Four and Five were developed following the administration of Model Number Three. Certain comments and suggestions made by some students were incorporated into these forms:

> "Be brief and to the point. Stop beating around the bush. Tell us frankly what you want."
>
> "On the original questionnaire we felt forced to write something about an occupation even when we didn't have such thoughts."

Experimental Form Number Four is brief and unstructured. It asks what the students imagine, rather than calling specifically for occupational scenes.

Experimental Form Number Five specifically gives students the option of writing about the future or about an occupation.

Technical Aspects of the Administration of the Instrument.

Our analysis of the previous administrations of the instrument, and the ongoing experience during the year, raised the following questions and issues concerning technical aspects of administration. These were resolved as follows:

1. After the administration of Part I of the four-part questionnaire, should students be asked to write down their images of a career situation whenever these came to their minds, or should the writing be done only in the classroom? If the former course were followed, they would be given Part II to carry with them; in the latter case, they would not. It appeared that the advantage of spontaneous, immediate writing was overshadowed by the danger of losing forms and having parents reading the material and possibly raising objections to the research. It was decided to keep the entire administration within the classroom, and Part II was revised accordingly. At a later stage in the process of dealing with vocational fantasy it might be advisable to bring parents into the situation.

2. How much time should elapse between administration of the four parts? Spacing of a number of days permits time for further individual thinking by students; but may be more difficult for a classroom subject matter teacher to schedule, than administration on successive days. It was decided to allow at least one week to elapse between each of the parts. More material was thus elicited and objections by students to repetitiveness of the questions, were fewer.

3. What is the optimal age for administration of the questionnaire, which had been used mainly with 9th, 10th and 11th graders? How would 8th graders respond to the questions? Would graduating seniors find it coming too late in their vocational development? These questions were tested out during the year, as follows:

   a) Model Number Two was administered to 108 boys and girls in 8th grade Guidance classes at The Highlands School in White Plains, New York. The teacher-counselor attempted to follow the general procedures used previously in administration. However, this was his first year in that school and his first experience with the instrument. The administration was not tape recorded, and it is not known what influence the manner, atmosphere and details of administration had upon the elicitation of material. Analysis of the 108 protocols revealed that, in comparison with older students from other schools, these 8th graders:

      (1) produced briefer protocols with less rich material, which generally could not be used in developing our maturity scale.

      (2) took the directions literally and were more inclined to give specific, concrete pictures. The older groups also give "pictures" but they will go on to discuss the matter on a more abstract level.

      (3) showed very little concern for the preparation that would be necessary to reach their goals.

(4) were less inclined to relate their capacities to their aspirations.

(5) showed a less realistic understanding of the actual duties of occupations.

(6) usually mentioned just one goal and ignored the possibility of alternatives; thus, there was less conflict regarding goals.

(7) rarely contemplated the possibility of failure.

(8) were motivated more by adventure, pleasure and excitement than the older groups.

(9) rarely mentioned the possibility of marriage and family life.

(10) had difficulty understanding the "how I felt" and "feelings about myself" questions.

For further use with 7th or 8th graders, the instrument should be revised to provide more structure, examples and explanations, especially in the area of feelings.

b) Model Number Two was also administered to 59 boys and girls in the final term of 12th grade at Andrew Jackson High School. Two comments by students on the question of appropriate age and time for administration were as follows:

> "I thought that by this time most of us know what we want to do."
> "Now is a bad time of year because of all this college business and everything else. You really can't think about yourself that much. You're too busy with everything else."

For students who are going to college, administration of the instrument in the 12th grade may be valuable in stimulating their thinking, for instance, about choice of specific fields. However, students who terminate school at this point, seem to find it less valuable. In general the optimal age for administration of the present instrument appears to be the 9th or 10th grade.

Administration of the Instrument in Light of its Purpose.

The appropriateness of administrative procedures can be evaluated only in terms of the use which will be made of the written material, and the handling of cognitive and emotional reactions of students to the whole process.

It has become clear that the instrument has the capacity to arouse emotional reactions quite beyond our earlier expectations. These reactions can be handled by the administrator in a way which will help the student better understand himself and his vocational interests and choices; or they can be mishandled, with accentuation of confusion, unresolved anxiety, embarrassment and hostility. The problem is, how far should we go in stimulating students to give emotionally laden responses and to reveal their underlying fantasies, dreams and fears? What are the limits which must be set? What preparation, if any, should be given to administrators of the instrument?

The instrument, as it turns out, is multi-purpose. It can be used in any of the following ways:

1. As a research tool. This was the original purpose. It was substantially in this light that the questionnaire was administered during the year. The major goal was to gather material which we could utilize in assessing personal outlooks and in developing a maturity scale. When administered from this point of view, it is explained to the classes that we were looking for general aspects of vocational development, for phases which all students may go through in vocational thinking and choice-making. This approach shifts the focus from the student's own ideosyncratic reaction, to the general or typical aspects; from the personal response to the scientific knowledge of adolescent vocational imagery. It has the effect of neutralizing the emotion in the responses, to some degree. This is less threatening to students who fear self-revelation. Such an approach involves the introduction into the school of research personnel from outside. This may help certain students to feel more free in writing genuine responses to the questions. Several students stated that they felt freer when writing material for someone unknown from outside the school than writing for the teacher or others in the school who would read and evaluate the protocols.

2. As a teaching and guidance tool. The instrument can be used in the classroom or in group guidance classes, by teachers without particular training in counseling. When this is done, it is necessary to set definite limits on the depth to which the students are encouraged to go. Otherwise there may be the risk of releasing anxiety and hostility which may be disrupting to the class activity and to the learning process.

   Our goal would then be limited to getting students started in the examination of their vocational outlooks without becoming particularly involved emotionally at the time of administration. From this viewpoint the instrument might best be used early in schooling -- in the 9th grade in its present form, or in the 7th or 8th grade in modified form -- to begin a process of thinking about career issues and broadening vocational horizons. This process could be picked up in later years at a deeper level, if an experienced counselor were then available for administration and follow-up.

3. As a counseling tool. The instrument can be used in the school as a special kind of counseling tool. In this approach student involvement at a deeper level may occur. A variety of questions and problems are likely to arise. The administrator must have both training and experience in counseling, and specific instructions on the management of responses aroused by the instrument.

A basic issue must be faced here: should the instrument function primarily as a kind of diagnostic tool, which the "expert" counselor uses as one means of more effective appraisal of students, the better to inform, advise and recommend? Or should the instrument be used mainly to assist students to understand themselves better, so that they may work out solutions to their problems and make their own decisions about the direction they wish to take, with educative aid from the counselor?

Our belief is that the second approach is clearly preferable. However, there are a great many counselors whose personality and training tie them to the first viewpoint. It is essential to warn administrators of the dangers of using the instrument to manipulate and control students, to impose their own values without respect for the individual student, to direct students into paths which do not interest them, and to push students into conflicts which are threatening or overwhelming. Thus, while the protocols may be used to ascertain the students' level of vocational maturity and their specific vocational problems, it should also be used in a broader framework: to help students gain clearer perceptions of themselves, of their educational-vocational outlooks and of ways of thinking about vocations that will enable them to undertake more mature, and free, vocational development. In this connection we have planned to work out a simplified rating scale for vocational maturity which adolescents themselves can apply to their own protocols.

When the instrument is used as a counseling tool, special attention must be paid to the fears, anxieties, hostilities and resistances aroused in students. Such responses are elicited in greater quantity and depth than one would anticipate, particularly when the instrument is administered by a sensitive counselor who establishes rapport quickly and is able to get the students personally involved at the beginning. Such involvement enhances the production of meaningful material and significant learning. But it is psychologically threatening in various degrees to a number of students. This was readily apparent to the administrators this year and to the researcher who conducted the follow-up sessions.

From the tape recordings of the meetings at Andrew Jackson High School we have taken the following verbatim comments of students who expressed resistances to writing. These are but a few of the many such signs which were evident. The following statements were made to the teacher:

> "I didn't tell you what I wanted to put down. I wouldn't."
> "Because I really don't think it's any of your business."
> "I think it's foolish."
> "I think it's more or less of a resistance to really tell what you want to tell. I mean you think you really want to do this thing, but really I guess it's your conscience or something you--you're holding back.".

The following statements were made to the researcher who conducted the follow-up sessions:

> "Sometimes you just couldn't write it because you were afraid."
> "I thought the fourth test was very disturbing. In fact I still look back at it and I'm very afraid of everything I put down."
> "I thought when I was doing it--I don't know--a lot of people felt bored with it all, or angry. I was very fearful of it. I was very upset every time I finished one...I don't know why."

Hunter College High School students expressed the following resistances to filling in the questionnaire:

> "This is confusing and difficult. I can't write anything."
> "It is too abstract."
> "I feel defensive; it makes you feel defensive."
> "I'm sick of guidance and psychology and tests like this."
> "I won't tell you what I think about the future."
> "Some of us are scared. We have to do what they want us to."
> "We're not going to be honest in answering this."
> "We don't feel free to write what we think."

Special attention must also be paid to methods of coping with the apprehensions, fears, anger and resistance of students. It is crucial that new administrators be prepared in advance. They must be thoroughly familiar with the instrument and the kinds of responses it elicits. They should be warned that student reactions to psychological threat take several forms, predominantly the following in the classroom:

(1) disorder: the group may become extremely talkative, with excessively loud laughter and wisecracking.

(2) hostility: both disguised and open irritation and anger may be directed against the administrator and the questions.

(3) obstruction: students may try to stall by asking many questions, repeating the same questions, asking for definitions, etc.

(4) withdrawal: there is reluctance to write down thoughts and feelings.

Inexperienced teachers and counselors tend to interpret such reactions as personal attacks upon them. Actually, these are typical defensive responses to personal emotional threat. It is important that the administrator be clearly aware of this.

The administrator's attitude should be acceptant and supportive throughout. It is important not to be punitive or rejecting when resistances arise. These usually begin with giggling, embarrassment, physical restlessness and other signs of discomfort and nervousness. At this stage the students are willing to go along with the teacher or counselor. Then as some of the material about the self and its implications come through to the student, he may feel shocked; suspicion and hostility may be aroused. Some students feel that the instrument is probing, that they have been exposed to danger by revealing secret or unpleasant material about themselves. They may strike out in defense, or block themselves, or give stereotyped responses. It is crucial that the administrator maintain an acceptant attitude during the height of the hostility and resistance, which can be expected with Part III. Students expressed the fear that the material would be used punitively by the teacher and the school. The counselor should point out to the group that these are inevitable phases in one's struggle for self-awareness; that everyone wishes to discover himself and his vocational interests but at the same time feels anxious and defensive in the process. There should be a free atmosphere and a great deal of discussion of any issues that the students raise, as they attempt to verbalize their fears about themselves and their plans. If there is little or no discussion, no ventilation of feelings, the students will tend to write what they feel is safe for them to repeat, rather than what may be significant, revealing and perhaps painful. A sufficient number of class periods should be allowed to handle such discussions between each of the administrations. And after the end of the series there should be follow-up sessions to deal with reactions and questions which have come up.

At the same time that they are defensive, students show a strong impulse to move outward and forward--to express themselves, become more aware and concerned, to deal with their basic vocational and life problems. The instrument arouses a great interest in the self which cannot long be overpowered by anxiety and fear. For example, after the follow-up sessions at Andrew Jackson High School the researcher made himself available to answer questions. Every student who came to see him asked with great interest for a detailed analysis of his personality as revealed on the protocols.

A Manual has been prepared to assist teachers and counselors in the administration of the instrument as a counseling tool.

Value of the Data Elicited by the Instrument.

The effectiveness of the instrument was assessed in terms of the following criteria of content:

1. Authenticity--genuineness of personal disclosures.

   (a) Evidence for authenticity of the instrument came from several sources:

   (1) The many judges, as well as the researchers and others who read the protocols, gained a definite clinical impression of genuineness of the written material.

   (2) The administrators, who knew the students and were able to evaluate the protocols in terms of other data, were impressed by the honesty of the material.

   (3) With the purpose of checking authenticity of the protocols, 10 interviews were made with Hunter College High School girls who had filled out Models Number One and Three of the instrument.

A comparison of protocols with interviews reveals that vocational preferences mentioned and the way of discussing them, were essetially the same. In nine cases the basic choice was the same: writing, chemistry or science, art, guidance counseling, etc. In some of these cases peripheral possibilities had been added or subtracted; but the primary interest was discussed in the same way in both protocol and interview. In the tenth case the student showed, in both, protocol and interview, her frequent change and scattered view of occupations.

Following is an example of the similarity in written and interview material:

Protocol: "Specifically, I am almost certain of going to college and then? I do, like most girls, (because it seems best) want more than anything to get married and have children that I myself can educate the way I think is very best. But when these children (and there must be more than one) start growing up I want to do something for many more people for I will only live once. I am most interested in being a general practitioner."

Interview: "Well first of all, I'd like to go to college, and I've looked around in many ah...many pamphlets and things, so I know what I want to go about. And I'd like to finish there for four years and if I can eventually get married. And if there's time I'd like to study medicine, also, after I get married; but I don't know if I can....Yes, I'd like to get married. I think it's the right thing to do."

A complete protocol and interview are included later in the report.

(4) In the follow-up meetings at Andrew Jackson High School, several students stated that they had written authentic protocols. Examples of such statements follow:

> "I think that to a certain point you can write down what you feel about yourself; that you know it's pretty obvious. I put down some things that I know are true about myself."
> "Well, I think that I would put everything--give my true feelings, because I would be speaking to someone who has no personal connection with me."

(b) However, two students at Andrew Jackson High School reported in the follow-up session that on part of the questionnaire they made up material because they felt they had to write something, and no new ideas came. Their statements follow:

> "As I was writing it I wasn't sure whether this was--would really be--this is really what really bothered me...whether this was really the idea or was I really making it up just to fit my conscience. That's the thing that really bothered me....It was manufactured."
> "Sometimes--I think a couple of them were real but the rest of them were filled in or I didn't answer them."

Two Hunter College High School girls also hinted at fabrication:

> "What I write is not necessarily what is my inner self. This encourages you to fabricate."
> "I know this psychological terminology from hearing it at home. We're cagey; we give them what we think they want."

However, it is significant that such comments were made openly to the teacher or researcher. They strike one as being expressions of defiance and resistance, rather than descriptions of falsification.

2. Variety and comprehensiveness--extent of personal disclosures.

Again, the judges, administrators and researchers were impressed with the depth of material elicited by the instrument. The frankness and revealing quality of the protocols is striking. Thus, when several students reported in the follow-up session that on part of the questionnaire they withheld material, they had already gone rather deeply and were frightened by this fact.

Several statements by Andrew Jackson High School students follow:

> "I was talking it over with quite a few of us in class and they felt that they were talking to somebody and they didn't want to actually give information on it."

> "I thought that up to a point I put down the good and bad things I felt about myself. But there were a few I wouldn't put down, even though there was no connection with the school."
>
> "I mean most of us are very afraid to write because we're afraid that the school authorities will read it. And maybe that's why we can't think of anything to write on the second and third. And like we have to put our names on it, and people say, 'Well, listen, I don't know who's going to see it, so why should I be so open about it?'"

3. Meaningfulness--applicability of personal disclosures for judging maturity and for developing self-awareness and understanding.

With the exception of the 8th grade, the protocols provided sufficient material on which to judge maturity and further develop the maturity scale. Some of the judges expressed the desire to have more material on which to evaluate the cases, but all were able to make maturity assessments on the protocols alone.

In subsequent discussions and counseling, the administrators found a great deal of evidence that the instrument had stirred up most of the students and stimulated new thinking. One administrator stated that the questionnaire had done the following things:

> "1. It forced students to think about the relationship between fantasy and reality in terms of the vocational area.
>
> 2. It helped foster a concern with 'planning' on the part of the students.
>
> 3. It forced the students to think about persistency of choice versus change.
>
> 4. It started them on the way towards introspection and to pull out feelings related to future plans."

II. Maturity Scale for Evaluating Student Protocols and Interviews

While a single authentic and meaningful protocol may reveal much about an individual student and his vocational outlooks, it is obviously desirable to have some method for general use in evaluating varied student responses to the instrument "What I Think About Myself."

The conceptual approach adopted in the current project was mainly an inductive one: to attempt the extraction, from more than 200 protocols, of factors, or dimensions, of maturity disclosed in them, then to arrange and scale these factors in a form applicable in judging other protocols.

This meant some initial selection and interpretation, by judges and investigators undertaking the inductive process, of what seemed to be clues or signs of "maturity" and "immaturity". Thus the professional experience, knowledge, and bias of the judges entered into the selection of factors and dimensions in the first instance. Consequently, the end-products or dimensions on the Maturity Scale represent a composite of maturity factors emergent from the protocols themselves and of interpretations in the minds of the judges and researchers. The fact that any pre-conceived notions which investigators brought to the assessment of protocol contents were considerably altered as they went through the wide range of protocol output is an indication that derived maturity factors actually emerged from student responses and constituted rather direct inferences from student outlooks as expressed.

As constellations of protocol items, associated with one aspect or another of maturity of outlook, began to form and to cohere naturally around a central idea or factor, this was given a designation, - such as Awareness, Differentiation, Focus - which seemed to denote the significance of the grouping. Successive refinement of the scale through continued assessments by different judges resulted in a scale which, though needing further experimentation, does embody the following useful characteristics: (a) a range of factors applicable to adolescents in junior and senior high schools (b) a method for assessing maturational factors and processes as disclosed through interviews as well as various types of instruments

(c) a list of items recognizable in protocols which can be related to meaningful groupings of maturity dimensions and designated on a quantitative scale and profile for comparative purposes (d) additional evidence as to elements of maturity or immaturity found in the vocational psychology of American adolescents.

Self-Situational Feature of the Maturity Scale.

In considerations of "maturity" in vocational development, one notices tendencies among theorists to lean in the direction of intrinsic influences or outcomes, as in emphasis upon "fantasy" or "self-concept formation", or in the direction of extrinsic influences or outcomes as in stress upon "accurate information" about occupations or "realistic" attitudes about vocational demands.

One feature of the Maturity Scale forthcoming from this research, derived from both theory and the significance of the data themselves, is the orientation upon elements of both Self and Situation in each of the main factors or dimensions listed. While it is true that in dimensions like Awareness and Differentiation, the intrinsic factor may predominate yet each of these has a strong objective reference. On the other hand, the factor of Direction, or Focus, tends to place an accent upon situational goals and outcomes yet represents essentially a characteristic of the individual himself. The factor of Integration brings together, in harmonious balance, a satisfactory accommodation of self-situational factors or conditions. It is perhaps not enough to call this a "compromise", as does Super, or even a "crystallization", it seems more appropriate to refer to it as a genuine synthesis, or better yet (from the standpoint of process) a synergy.

It must be recognized that any means of evaluation has its own effect on preceding processes. So, in the present case, any scale for assessing maturity will be bound to affect the way that desirable outcomes are perceived by counselors and by students alike. The fact that attention is continually called to Situational as well as Self Factors, and to the relationship of these in the process of maturation would seem to make for more balanced guidance approaches and outcomes than would predominant emphasis on either the Self-Concept or upon factors of social demand and requirement.

While the instrument (What I Think About Myself) brings to the surface unconscious, or co-conscious, contents mixed with conscious "slants" and interpretations by the student, the Maturity Scale tends to direct attention toward cognitive integration of self-situational elements on a long-term as well as short-term dimension. It is the individual who "knows what he is doing", to the greatest extent consonant with wholesome personality functioning, - who will probably be rated the most "mature". The impulse-ridden, or need-driven, individual may reflect "childishness" in his vocational outlook and a "lack of realism". On the other hand, the cold and calculating "planner" who "figures all the angles" may be unaware and heedless of large areas of his personality that ought to have expression and may likewise exhibit "immaturity" of another brand.

The fact is that we have a lot to learn about maturity and how it is acquired. In the investigation of this important phase of individual and social living, we shall need to pay a great deal of attention to subjective, or phenomenonological data of the kind produced in this project.

Construction and Refinement of Maturity Scale: New Forms Tried.

Several forms of a maturity scale were attempted and later dropped or absorbed into the major scale.

1. Q-Sort.

The protocols were carefully read for critical phrases which could be used as Q-Sort items. A large number of statements, of one and sometimes two sentences, were extracted verbatim and placed on cards. Three judges attempted to rate each item as "immature," "mixed" or "mature."

It was hoped that items on which there was clear-cut agreement could be used as a "core assessment scale." It was planned to have students rate themselves by sorting such items into three piles: those that "apply to me," those that "do not apply to me," and those "I am not sure about."

The judges found it extremely difficult or impossible to evaluate short statements which had been removed from the context of the protocol. A statement made in one context can have a very different meaning when it appears in a different protocol. The judges discovered that in most cases the phrases extracted as Q-Sort items were substantially qualified or defined by the remainder of the protocol. Consequently, they were able to rate only a small proportion of the items. And on these items there was no significant agreement among the judges on assessments of maturity. This approach was then discarded.

2. Global Self-Situational Scale.

Efforts were made to create a global maturity scale based upon broad concepts of Self factors, Situational factors, and Self-Situational relationships. Self factors would include awareness, insight, motivation, and emotional aspects. Situational factors would include understanding of occupations. Self-Situational relationships involve value orientations and the integration of inner and outer forces. In this kind of scale, general overall evaluations would be made, rather than a series of specific, atomistic judgments.

Two of the judges found that they spontaneously used this kind of global thinking in making assessments of maturity. However, pressure of time required us to focus our efforts on the development of the major form of scale (described below). Exploration of the global scale was consequently discontinued, although it had shown definite promise.

3. First-order inferences.

A simple inductive approach was tried in which first-order inferences were made from the contents of the protocols. Two researchers working independently extracted "modes of process expression" directly from the written material. It was found that a limited number of such modes seemed to account for all statements in the protocols. (Appendix B).

In an attempt to create a rating scale of maturity, one set of modes of process expression was organized under 4 major categories — Work, Affects and Values, Self, and Time Dimension—and 11 sub-categories, each of the latter being on a continuum (Appendix C). Much of the material in this rough scale was incorporated into SCALE II.

Development of the Major Form of Scale.

1. SCALE I.

a) The five judges selected were asked first to put into writing their proposed criteria for assessing vocational maturity and immaturity. Previous research has shown that it is often more difficult to get judges to articulate their reasons for making ratings, than it is to get them to make or agree upon the ratings.

This held true in the present research. The judges independently drew up their lists of dimensions of maturity and applied them to the protocols in what seemed to be a rational and straightforward way. However, when the judges compared their ratings in conferences and discussed reasons for making their particular assessments, they became aware of the tendency at times to rate a protocol actually on the basis of a vague "feeling" or some undefined reason, and then to assign a handy dimension. This did not invalidate the ratings; it is given as an example of one of the many difficulties faced in judging.

b) Another diffuculty lay in the limited amount of information available to the judges. The instrument, of course, provided only a fragmentary glimpse of the student and his vocational imagery. Students usually wrote about one page for each of the four parts of the questionnaire. Judges were given no other information, such as the student's performance in school, his measured capacities and interests, etc. Only the grade level, name of the school and sex of the student, were provided. That ratings could be made on such limited material without reference to reality situations, speaks highly for the effectiveness of the instrument in eliciting revealing and meaningful material.

c) Another difficulty was that this constituted a novel experience for the judges, who felt unsure of their criteria of maturity and their ratings, particularly in the beginning phases.

d) A comparison of the initial lists of dimensions drawn up independently by the judges, shows that there were major areas which every judge included and on which all agreed. In addition, each judge listed one or two dimensions which were not included by other judges. All such dimensions were included in SCALE I, which was formulated later. There were also three or four criteria on which judges disagreed, which were not included in SCALE I; for example, whether a high level of aspiration in itself is likely to indicate maturity.

e) As the judges assessed the protocols, they revised and added to their criteria. They made further changes after comparing ratings and attempting to articulate precisely their reasons for making each assessment.

f) A random sample of 10 male and 10 female protocols collected from Andrew Jackson High School 11th graders in 1957, was rated by each judge independently. Protocols were rated on the following five degrees of maturity: 1--highly immature; 2--immature; 3--equally mixed immature and mature; 4--mature; 5--highly mature.

g) The inter-judge agreement co-efficient for the five judges on ratings of 20 protocols, computed by an analysis of variance technique, was +.50. This was highly satisfactory in view of the fact that each judge arrived at and applied his own criteria without knowledge of other judges' criteria. It indicated that the instrument elicited adequate material on which to make maturity assessments; that the judges had in mind rather similar conceptions of maturity; and that it is possible to apply dimensions of maturity to the protocols.

h) Following a careful analysis, the five judges' revised lists of dimensions were combined into a tentative maturity scale, designated SCALE I (Appendix D). The 31 separate dimensions fell under four major headings: Work, Imagery, Self and Future. The "Work" area was sub-divided into Conception of Work (cognitive) and Attitude toward Work (affective), together including 11 dimensions. "Imagery" was comprised of Consistency of Imagery, Experimental Basis for Imagery, Reality of Imagery, and Emotional Quality of Imagery--totaling 8 dimensions. The area "Self" was divided into Self-Concept, Implementation of Self-Concept, and Self-Other Relations--also including 8 dimensions. "Future" consisted of 4 dimensions: Future Orientation, Planfulness, Optimism, and Intensity.

2. SCALE II.

a) Before taking the next step after developing SCALE I, it was necessary to resolve the following theoretical issue: is vocational maturity to be judged essentially through the content or current status of vocational orientation—what the individual's focus of attention is—or is it more accurately assessed in terms of the ongoing processes in vocational development—how the individual is thinking about vocations?

SCALE I had emphasized the "status" aspect. Although this scale appeared comprehensive, it seemed to miss the essence of the ongoing "process" in the student's thinking about himself in relation to occupations. Therefore, it was decided as the next step to create a scale which would encompass both aspects of maturity. SCALE I was combined with the "modes of process expression" which represented first-order inferences.

b) The new, more comprehensive scale was designated SCALE II (Appendix E). It included eight chief modes or factors, moving from simple to more complex levels, as follows: Awareness; Analysis, Insight and Understanding; Differentiation; Motivation; Emotional Tone and Coloration; Value Orientation; Direction and Focus; and Integration. Within each mode the dimensions were grouped under (a) the Self (b) the Situation and (c) the Self-Situational Relation.

c) Typical examples of the first seven chief modes were extracted from protocols (Appendix F). No examples could be found of the eighth or most mature mode, "Integration." Illustrations of parts of two of the modes follow; the more mature vocational outlook under the later mode, is evident:

Mode A—Awareness: dimensions of Self-Situational Relation:

> Awareness of incongruence of self characteristics with situational demands, or of actuality with imagined relations. Recognizes conflict of vocational images. Self and situational factors are beginning to be linked, however roughly. Need to choose or decide is recognized.

Illustrations from protocols:

> "I have to make up my mind now before it's too late to do anything."
> "I've really had two pictures and I don't know whether I want to be any of them. I pictured myself once on a construction job and the other I was a teacher. The construction job wouldn't be good when I get old. And I don't know whether I want to be a teacher."

Mode G—Direction and Focus: dimensions of Self-Situational Relation:

> Idea of personal study, planning and preparation in approach to desired goal is incorporated. A future orientation is introduced in realistic terms in contrast to exclusive concern with the present; but not in order to escape from present realities. Individual displays planfulness in consideration of various preparatory and intermediate steps.

Illustrations from protocols:

> "I want to be different and yet I want the same things of life as the natural person would. That is why I try not to much on the unrealistic things now and concentrate on improving the studies for my chosen field (stenographer) and trying to be happy which I actually achieve when realizing this is one thing I can really do well that maybe someone else can't."
>
> "When I graduate high school, I'll be 18 by that time. By this I'll know whether I'll be good enough to stick to sports, if not I plan to join the Air Force and get a little further education. If I'm really interested in planes after that I'll go into it. If not, I'll go and try to be a cop. By this time I'll be 21. This way I have a chance to put all my dreams to a test, and find out which one is really what I want."

d) Ten judges with backgrounds in psychology and counseling were asked to attempt to apply SCALE II, using the illustrations but no additional information, to another sample of 10 male and 10 female protocols. Rather than taking a random sample this time, we selected the richest protocols from a previous pilot study, in order to facilitate the process of judging.

e) Two of the judges stated that they did not feel able to rate the protocols, and withdrew. They felt that the modes were ambiguous, overlapping, and not clearly defined; and that the protocol material was not adequate to permit rating. That is, the dimensions were not sufficiently operational for the data available; they represented inferences at too high a level. Also, these individuals did not feel sufficiently sophisticated concerning theories of vocational development, to apply the scale.

f) These difficulties were experienced to some degree by all of the judges. The remaining eight, however, felt that they could make satisfactory ratings in spite of the handicaps inherent in the initial rudimentary stages of developing an assessment instrument.

g) A 7-point rating scale was used (Appendix G). The lowest maturity rating was given when a mode was present in a negative sense; the next lowest was assigned when the mode was absent; and higher ratings were given when the mode was present in a positive way. Definitions of "negative" and "positive" were left up to the judges. Each mode was rated and then an overall summary rating of the protocol was assigned.

h) For the purpose of computing agreement among judges, equal intervals between the seven points were assumed. The inter-judge agreement co-efficient for the eight judges on ratings of 20 protocols, computed by an analysis of variance techniques, was +.75. This was a satisfactory degree of agreement, in view of the rudimentary stage of the scale and the fact that judges were not trained through trial runs prior to judging for the record. It appeared that we had the beginning of a workable scale. We decided to attempt to refine SCALE II in the remaining time available.

i) Conferences were held with the judges in which ratings were compared and discussed, the rating process evaluated, and the criteria for maturity reconsidered. Suggestions for further revisions in the scale were elicited from judges.

3. SCALE III.

a) Several minor changes and refinements were made in SCALE II to produce SCALE III. This contained seven chief modes, each again pertaining to (a) the Self (b) the Situation and (c) the Self-Situational Relation.

b) The following changes were made in the organization of modes: Overlapping and close similarity were found in Mode A—Awareness, and Mode B—Analysis, Insight and Understanding of SCALE II. These were combined into Mode A—Awareness and Understanding (SCALE III.)

Mode D—Motivation of SCALE II was found to be represented in several of the other modes; it was dropped in the new scale. A new ultimate mode was added to SCALE III: G—Developmental Potentiality. It appeared that openness to further change and significant growth was an important aspect of vocational maturity of high school students.

c) The wording of the dimensions was changed, and each was stated in question form. This permitted judges to answer each question with a "yes" or "no" which in turn permitted quantification by adding the total number of either response on a protocol.

d) A 5-point scale was re-introduced, to make it easier for judges to visualize a straight continuum with equal intervals from "immature" to "mature."

Final Version of the Scale of Maturity.

The final version of the scale, as produced in this exploratory investigation is shown on succeeding pages.

RATING OF MODES OF PROCESS EXPRESSION IN VOCATIONAL IMAGERY PROTOCOLS

As pertaining to: (a) The Self (b) The Vocational Situation
(c) The Relation of Self to Vocational Situation

CHIEF MODES TO BE RATED	CHARACTERISTICS OF THE MODES
A. AWARENESS AND UNDERSTANDING	SELF: 1. Is there awareness of need to think about and analyze self? 2. Is self-definition underway and a self-concept in process of formation? SITUATION: 3. Is there awareness of need to study vocational area? 4. Are ideas about vocations beginning to emerge from background of vague ideas or fantasies? 5. Are vocational possibilities being analyzed? SELF-SITUATIONAL RELATION: 6. Are Self and situational factors beginning to be linked? 7. Is there awareness of incongruence of self characteristics with situational demands, or of actuality with imagined relations? 8. Are conflicts of vocational images recognized? 9. Has the present stage of development been considered and decisions made to reach choice or postpone it? 10. Is there understanding of amount or type of work and effort needed to approach or attain desired goal?
B. DIFFERENTIATION AND INDIVIDUATION	SELF: 1. Is the self being differentiated from vague, general stereotypes or fantasies? 2. Are self-references becoming more varied, detailed, significant and relevant? 3. Is self-determinism manifested as opposed to reliance upon outlooks of others? 4. Are ideas about self gained from personal evaluation in contrast to assimilated stereotypes? SITUATION: 5. Is a range of accurate, organized knowledge of specific details of vocation being assimilated? 6. Is there recognition of particular abilities required? 7. Are ideas based on personal exploration and experience? SELF-SITUATIONAL RELATION: 8. Is study, thought and investigation of self-situational connection being made in more analytical and factual terms? 9. Is a distinct personal-vocational pattern emerging in which the individual identifies satisfactorily with a rather clear vocational outlet?

C. EMOTIONAL TONE AND COLORATION

SELF:

1. Is there spontaneity, openness, frankness, vitality and vigor?
2. Is the coloration of self-perception positive and optimistic?

SITUATION:

3. Does positive interest and anticipated gratification accompany the idea of a goal?
4. Is a personal relationship felt to the visualized occupation?

SELF-SITUATIONAL RELATION:

5. Is confidence in attaining the goal strongly felt?
6. Is the feeling conveyed that the person is genuinely involved, is "set", committed, and "on his way"?

D. VALUE ORIENTATION

SELF:

1. Is an orientation upon prized personal values revealed?
2. Is there concern for others as well as for oneself?

SITUATION:

3. Is there an appreciation of the social significance of considered occupations?
4. Is the idea of social contribution or service present?

SELF-SITUATIONAL RELATION:

5. Is there recognition of appropriate status of self in relation to society and to social obligations and responsibilities?
6. Is there a realization of developing individuality and its meaning in personal life and performance?
7. Is the self organized around a core of dominant themes or values?

E. DIRECTION AND FOCUS

SELF:

1. Is there an absence of wild vacillation and confusion?
2. Are contradictions and ambivalences being resolved?
3. Is there a lack of strong conflict in interests, values and aims?

SITUATION:

4. Is there a unified directional trend and goal orientation?
5. Is the focus upon one or two studied fields as opposed to wide scatter?

SELF-SITUATIONAL RELATION:

6. Is personal study, planning and preparation in approach to desired goal, included?
7. Is a future orientation introduced in realistic terms in contrast to exclusive concern with the present? (Future orientation should not represent a desire to escape from present realities.)
8. Does the individual display planfulness in consideration of various preparatory and intermediate steps?

F. INTEGRATION

SELF:

1. Are ideas about the self being cohesively combined in significant ways?
2. Is the individual moving toward a coherent and personally acceptable self-perception and definition?

SITUATION:

3. Have the individual's ideas about vocational possibilities and requirements coalesced around a core of significant and relevant aspects of vocation that are important to him?

SELF-SITUATIONAL RELATION:

4. Is the self finding personal integration and resolution of conflicts and contradictions through satisfactory vocational outlook or expression that synergizes personal characteristics, vocational requirements and circumstantial conditions?

G. DEVELOPMENTAL POTENTIALITY

SELF:

1. Does the individual seem to be open to change and further significant personal growth?

SITUATION:

2. Does the individual seek to study and learn more about an occupational field or fields?

SELF-SITUATIONAL RELATION:

3. Does the individual see himself in new relationships with an occupation (or occupations) as he gains knowledge, experience and status?
4. Is the self-situational accommodation (as revealed in protocol) perceived as being not necessarily fixed or final, but open to possible further progressive change?

JUDGES' RATING SCALE (Revised) June 1962

Judge__________ Case No.__________ Sex__________ Date__________

	RATING				
MODE	(immature)				(mature)
A. AWARENESS AND UNDERSTANDING	1	2	3	4	5
B. DIFFERENTIATION AND INDIVIDUATION	1	2	3	4	5
C. EMOTIONAL TONE AND COLORATION	1	2	3	4	5
D. VALUE ORIENTATION	1	2	3	4	5
E. DIRECTION AND FOCUS	1	2	3	4	5
F. INTEGRATION	1	2	3	4	5
G. DEVELOPMENTAL POTENTIALITY	1	2	3	4	5

SUMMARY RATING:

JUDGE'S COMMENTS CONCERNING PROTOCOL OR RATING PROCESS:

Use of Final Version of Scale in Judgment of Protocols.

1. Three judges applied SCALE III to a third sample of 20 protocols. These were selected from the Hunter College High School group (all female) because it was possible to interview these students, and not Andrew Jackson High School students.

2. The inter-judge agreement co-efficient for the three judges on ratings of 20 protocols, computed by an analysis of variance technique, was +.55. In view of the small number of judges and the fact that they were not trained through trial runs, this was a satisfactory degree of agreement.

3. The judges evaluated SCALE III and made suggestions for further refinements.

III. Correlation of Maturity Assessments with School Data

1. The maturity assessments on the first two samples of protocols were correlated with school data obtained from the students, records and teacher-counselor at Andrew Jackson High School.

The maturity ratings were not exactly comparable because, with the first group of 20 protocols, each judge used his own criteria of maturity; and with the second group of 20, all judges used SCALE II. Because in the first case a 5-point and in the second case a 7-point rating scale was used, the maturity ratings were transformed into standard scores in order to insure statistical comparability.

Records were not available on 2 students. Therefore the total number involved in the correlations was 38--18 boys and 20 girls. On some factors the number was smaller because data were lacking.

2. Pearson Product--Moment correlations were computed between the composite maturity rating of all of the judges and the following factors:

a) Age (N: 38): + 30
b) Academic achievement: cumulative grade average (N: 31): +.11
c) Mental level: Otis B--I.Q. (N: 33): +.08
d) Achievement tests: Nelson-Denny A--Reading (N: 23): +.08
New York City Comprehensive Arithmetic (N: 21): +.26
e) Number of extra-curricular activities participated in (N: 38): +.46. Only the last-named factor correlated significantly; this occurred at the .01 level of confidence.

3. For the following factors, analysis of variance technique was used to ascertain the relationship with the composite maturity rating:

   a) Sex.
   b) Social level of family, based largely upon occupation of father and mother.
   c) Type of curriculum.
   d) Citizenship ratings by teachers.

   None of these factors were significantly related to the maturity rating.

4. It was not anticipated that significant relationships would be found between school data and maturity ratings made at this early stage in the development of a scale. The relationship discovered with the number of extra-curricular activities in which the students participated, should be explored. This might reflect a generally active, involved attitude of mature students. Or the greater participation may directly "educate" the student in some of the realities of work situations.

IV. Some Qualitative Results

The most interesting and significant material in the study was qualitative--the actual verbal productions of students and the interpretive assessments of these. The richness and variety of the questionnaire and interview material is obscured by quantitative handling and formal reporting. Consequently, we have included here several sample protocols with the judges' ratings on maturity and their comments. These are followed by interview material and related assessments by judges and teachers.

Sample Protocols.

The following protocols were written by 11th graders at Andrew Jackson High School. They represent the least and most mature in this age group. They also illustrate cases of agreement and marked disagreement among judges.

1. Case of Striking Immaturity: C7 (Male).

The following protocol was rated as definitely the most immature, in the second round of judging. The composite rating score of eight judges, using a 7-point scale in which 1 was "present and negative" or the most immature value, was 15. Of the remaining 19 protocols, the next lowest composite score was 24.

This was also a case on which there was high agreement among judges: the ratings ranged from 1 to 3. On cases of disagreement among judges the ratings ranged as widely as from 1 to 6.

The protocol shows the kind of unrealistic, sometimes omnipotent fantasy which pervades many of the questionnaires.

Following are comments made by several of the judges:

> "This boy seems to me to be very immature. Hence the ratings on the negative side of the scale."
>
> "Immature, dependent, unrealistic vocational aspirations; influenced by TV and movies."
>
> "This one is really 'way out.' Protocols I and II deal not with vocational choice but with the material 'fruits of the labor.' Unrealistic, child-like dreams of great wealth, adulation - the words 'plush' and 'luxury' recur--reveal a kind of latter-day Robin Hood, half outlaw, half hero. Lack of insight,self-esteem revealed in IV. Identifies with other boys only in 'getting into trouble.'"

The protocol follows:

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Male C7

I

I can see myself as a record maker for radio and Television. I would like to be, and I dream of being an entertainer. I'd be making recordings and be making appearances all over the United States. I will have my trusty guitar and my chorus in the background. People would listen to me and the public would like my singing. If I made a lot of money I would have nice houses and cars for my family. I can see myself with girls flocked all around me and I would find myself a beautiful girl for my wife. After I save a lot of money I could make investments in things I know will give me big dividends.

II

After I make my money I will have a beautiful home for myself. My parents will have their own home in California. The scene I picture myself in is one of luxury and beauty. My house will be a roomy luxurious, one hundred thousand dollar home. My house will have a full staff of servants with a smaller house for each one of them. A plush living room will be in the front and side of my house. There will be a large dining room and kitchen. My bedroom will be the top of the house. I'll have a bath and game room in the upstairs too. Everything will be in order and the house will be clean.

My friends will come over nights at my house. The basement will be finished off with pine and more pine. The bar will be one of the many attractions.

The pool will be another attraction the floor will be sunk down so I can have a high diving board. I'll have a recording room and all sorts of things in my game room.

I'll have clothes galore all of them will be most "cool." I've often thought of these things in my life.

III

While being an entertainer I picture myself as a gangster working for law and order. I felt as if I was doing a great public service and getting personal happiness as well. I can see myself with my boys breaking up a dope racket, or a squeal for some group of people and such. I would be sort of a private detective for myself. I would help some people and make my money on others. All of this would not be made public. I would still have my job as an entertainer as if nothing was going on.

After a while I could be an Under world King and then spring a City wide reform. Everything would be the way I want it.

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IV

Ideas I often have about myself:

Often I think that I'm clumsy and a big ape. People call me an ape in jest.

I think that I'm a popular guy with most girls and boys.

Sometimes I think I'm out of place with a lot of girls near me and other times I think I'm being real cool.

People tell things about me that aren't completely true and I have to live up to their expectations.

Feelings I often have:

I feel good when I'm with my girl. I feel like I'm king of the world.

Often the girls fool around about my muscles. I feel funny having them point and say things about how big they are and everything. Not that they are big or anything. I feel all my troubles and fun come from girls I know. I don't usually hang around with guys. The only time I do is when I feel like getting into trouble.

2. Case of Definite Maturity: C10 (Male).

The following protocol was rated as one of the most mature of the second group judged. The range of ratings was from 4 to 7 on the 7-point scale. The composite score given by eight judges was 41--one of the highest.

Inter-judge agreement was relatively high on this protocol. The material shows a rather rare degree of maturity for this age level, in comparison with the average run of protocols. Following are comments made by the judges:

> "Good values, very mature. Knows when he is unrealistic and when realistic. A very mature record."
>
> "Seems a well-integrated person for his age, who is coming naturally to accept the family career pattern (appropriate) after dreaming and playing in early adolescence."
>
> "His self doubts seem to be the major limitation to greater integration re musician."
>
> "This boy shows some insight into the problem of choosing between a career as a policeman and a career as a musician but does not seem to realize to what extent he himself (rather than his parents) is leaning toward the job with the accepted middle class values and respectability, although his interest seems to point to the other. Interestingly, it is dissimulation ('acting') which annoys him most in other people, and he is negative in most of his self-evaluation: 'I don't like....I am different....My ideas are unusual.... I don't have an inferiority complex.'"

The protocol follows:

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Male: C10

I

The scene can be a recording studio or a dance hall. In this scene I see myself playing the guitar. I am enjoying myself. I can see myself writing arrangements for a small combo. I think the reason I see myself doing this is because I have a small combo now and I work out some arrangements for it. In school I take music theory and therefore know a little bit about arranging. I think that is one reason why I can picture myself in a combo like George Scherings or Art Van Damm's. I would like to make records and personal appearances at different night spots.

The scene that I picture is not a realistic one. First of all I don't play the guitar well enough to become a professional. Secondly my parents wouldn't let me become a musician because of the pictures and stories you see and hear about them. I think one of the reasons I would like to become a musician is because music is one of the best forms of expression. Some people think of musicians as bums that drink and take dope. This is not true. I look at a musician as a professional man who knows his business just as well as an engineer, doctor, lawyer or any other respectable occupation. Even though I realize that my vision is not one of reality, I still like to think of doing something like that whenever I feel depressed.

II

Sometimes, as I have said before, I see myself playing the guitar with a band or small combo. I can see myself arranging for a small combo. This picture is what I saw in my mind, but this picture is not practical. My parents don't want me to become a musician because there are too many of them and it is hard to get a job. Sometimes I see myself as a policeman. I can see myself sitting with my brother, brother-in-law and cousin who are all cops, discussing the police department and law in general. After reading the above statement one might conclude that the only reason I want to become a cop is because the rest of my family is and I want to "belong." I have thought of this and as far as I can see this is not true. I truly believe that I would like to be a cop. Sometimes I see myself in a police uniform walking a beat. I can see a group of hoods standing on a corner and making too much noise. I can see myself talking to the boys in a friendly but firm way. Then they disperse without an argument. That is another picture I see. I think the reason I see myself doing this is because I would like to see teen agers and adults show more respect for the police. When I reflect on my thoughts I see that I have two dreams. One which can be very realistic, the other very unrealistic. I think everybody has a secret dream to be something that they can't. There may be many reasons for that but I think one of them could be that people must spend sometime in their own world of fancy. A persons world of fancy may be the vision of being a millionaire.

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III

The "standout" situation where I pictured myself in this career job was like this. I saw myself playing in a big name band. In this picture I see myself playing the trombone. Another picture that stands out in my mind is a picture of me playing the guitar in a small combo. These two pictures are the pictures that stand out in my mind.

I'm not sure I know how I feel in these pictures because when I see the pictures it isn't like I'm actually living it but its like I was watching a picture. These pictures stand out in my mind but I think I really want to be a cop. Maybe the reason I don't see myself being a cop as clearly as my being a musician is because I don't really know what a cop does in a day. I know he'll walk a beat for eight hours of the day but I don't really know the feelings and the thoughts that would be going through his mind. I have played trombone in the school jump band so I have a pretty good idea what its like to play in front of an audience. In time I may realize which dream I will turn into a reality but till then I will continue to have dreams.

IV

Ideas I often have about myself:

I think I am very different from everybody else. I think this is unusual because most teen agers say they are just "average." I feel different about a lot of ideas commonly accepted by other teen agers. For example I don't like pegged pants, going steady, black leather jackets or teen gangs. I don't smoke now and I don't think I will later on. There may be many other teen agers with the same ideas that I have but I haven't met any. That is why I think my ideas are unusual. I don't have an inferiority complex because I believe I am right in my convictions. I am a fairly good athlete when it comes to basketball, baseball and football. Sometimes I think I am conceited because I like to think of myself as being a hero. I don't like people who act. I don't mean professional actors. I mean normal people who act when they're in front of a crowd. I know some people like that and I see it all the time. When they get in front of a crowd they start doing something to get the attention of the others even if they have to make a fool out of somebody else. When I'm with a crowd I can get them to laugh without using somebody else for a tool. When I'm with people I know I'm alright but when I'm with people I don't know I'm usually very quiet. This is sometimes mistaken for conceit. Maybe I am right and maybe I'm wrong but I will continue to live according to my standards.

3. Case of Marked Disagreement among Judges: C15 (female).

In a few cases there was striking disagreement among judges on their assessments of maturity. On the following protocol there was a definite split, with two ratings of 2 and two ratings of 3 on the immature side; and one rating of 5 and three of 6 on the mature side.

Following are the comments of judges who gave low evaluations:

> "Seems unusually immature and inconsistent for grade level (although verbally brilliant)."
>
> "Unrealistic, immature, lacking self-discipline and strong sense of direction. Day-dreamer, afraid to face reality situations, but aware of much of this. The first image seems to be the most realistic, and emotional reaction to it the most positive."

Judges who assigned ratings of 6 wrote the following:

> "Appears to be quite intelligent and quite self-critical. Good vivid descriptions of vocational possibilities. Has flair for writing--to be encouraged."
>
> "Seems to be a free, spontaneous person who can differentiate self-situation and fantasy."
>
> "Evidences real understanding of capacities of himself as an average human being and the discrepancies between these and the glamorous aspects of certain occupations. Motivation and value orientation definitely more mature than found in most of these protocols. Integration has not yet taken place, but one has the feeling that when it does it will be on a mature level. However, Part IV is not up to same level as rest."

The protocol follows:

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Female: C15

I

I see a large office building in New York which encompasses a newspaper office. Inside is a busy, bustling office scene. People are running to and fro, editors with stacks of copy, typewriters bang; it is a scene of "orderly disorder." I am a part of this, I belong to it. I have a place and I am important in it. I suppose it's just looking for security to want to be part of an organization.

My feelings were calm and confident. I knew I could do my job well and I was. People could depend on me. I didn't really worry, I wasn't nervous or afraid I couldn't do well. (I suppose this scene is really too optimistic.) There would probably be many headaches accompanying my job. I had many friends, it was a good job and I was happy to be in it. It was really like an enlarged "Hickory Log" office. I like the newspaper work - it gives a feeling of accomplishment. I also picture myself in the very unrealistic position of a glamorous night club singer. I know this is rediculous, my singing voice is non-existent. But I still like to (sometimes) pursue these thoughts. I see a smoky night club scene with all the trappings.

I feel very self-confident, of my pearly tones and my glamorous appearance. It is a very exciting day-dream, pealing with laughter and gurgling with champagne bubbles. I can't really feel or see myself in this life, except for a few brief glimpses. I think I would probably get bored of the same thing again and again.

II

Sometimes I picture myself as being very brave, fearless (etc.) (This is a "previous time" scene.) It's a hard scene to picture. I would take the form of jet fighter pilot, winging through the skies. Living a hard, reckless, life-like the "standard masculine hero-type" and yet being warm, tender (to injured, mentally or physically) in "true feminine spirit." I see a frail tin can winging off into blueness. I am at the controls and I am responsible for it. If we are attacked I "shoot 'em up." We come through Okay.

I feel confident of myself, but I know that I am not really free from fear or trepidation of the unknown.

III

1. Career Picture

I can picture myself as a commercial artist. I see myself in a room - I can't really say a room, the rest of surroundings are indistinguishable. I am sitting, working over a lay-out for an advertisement. I only know I am working with vivid colors - I think a startling pink. I can't see my face - only my back.

2. I am absorbed in my work, and am very happy to be doing it. The feeling of creating beauty brings a sense of satisfaction and elation.

IV

1. I think I'm too hot-tempered - I flare up too quickly and say things I regret.

2. I think I'm too good to myself - I give in to myself - I wish I had will power.

3. I hate myself for making stupid, careless errors.

4. I don't like people who seem to know just what they're doing - who seem to be too all-knowing beyond the point of just being level-headed.

5. Sometimes I think I can do something very well and other times I think I am no good at it.

6. I think I should be more decisive.

7. Sometimes I feel I should be more relaxed and easy-going - and then I feel I should buckle down and really work or study.

8. I like people who are friendly, warm, people who are do-ers always taking from life because they give to it. I don't like the aggressively active person though.

Feelings

1. Sometimes I feel that all I have to do is open my mouth and I can sing - on key.

2. I feel very angry when told what's wrong with me.

3. I feel very happy, buoyant and carefree when everything works out and looks promising.

4. I feel uneasy and my stomach ties in knots when I'm up against something I'm unsure of or something I must do and am unsure of my abilities. School makes me feel uneasy - I worry about marks.

Sample Short Interview with Protocol.

One of the more illuminating of the 10 single interviews, together with protocol, is reproduced below in full.

1. Data on the student.

This student was a 9th grader when she filled out the questionnaire, Parts I through IV. This was one of the richer protocols. Two years later she filled out Part I (New). She was interviewed a few months later, at the end of the school year.

Each of the three judges gave the protocol a rating of 4, giving her one of the highest composite maturity scores of the group. The interviewer felt she was one of the most mature of the 10 students interviewed. A teacher--advisor gave her high ratings on maturity and on growth over the past two years.

This student was 14½ years of age when the questionnaire was first administered, and 17 when interviewed. Both parents are living. The father is a practicing attorney and the mother, who attended high school, is a housewife. There are no other children.

The student had a cumulative grade average of 90. Her class standing in this special high school for the academically talented, was 76th in a class of 190. The curriculum for the entire school is academic, enriched for the intellectually gifted. On the Lorge-Thorndike intelligence test the student's verbal I.Q. was 135; the non-verbal was 118. On the SRA National Merit Scholarship Qualifying Test her total composite score was 26, the percentile 97, and the selection score 130. On the College Boards her Scholastic Aptitude Test verbal score was 573, the math score 479.

All of this student's teachers gave her superior ratings on personality, character and appearance. Some of their descriptions of her follow:

> "Efficient, very capable, excellent worker, responsive, interested, reliable, forceful leadership qualities, never satisfied with partly understanding, reflective, fine mind, pleasant, cheerful, good to have around, creative, original, perceptive, mature."

She participated in an average number of extra-curricular activities, and reported that she had experience in part-time work. On a school form she reported that her parents urged her to attend college. As reasons for desiring a college education she gave: "knowledge and maturity to take place in community; achieve self-realization; and qualify to serve." She gave her vocational aim as "art--teaching, therapy."

The protocol follows:

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Part I

1. I saw myself in a room in front of a typewriter and I assume that I was writing a novel or story of some kind. I was the only person in the room and the house in which the room was situated in the country. I usually picture sun lighting up the room but occasionally I have pictured the scene outside the window to be cloudy. Also I sometimes picture a small dog in the room with me. The scene indicated the time of day to be about 1:30 P.M.

2. I was pleased, as this is the type of work I hope to be doing some day, although I prefer an art career to that of an author. I feel that this mental picture I have of myself is very likely to come true and if it does I will be very satisfied. I know that my facial expressions in the "picture" showed much interest and enthusiasm for what I was doing and I feel that I would go about writing a novel or story in much the same manner as I have imagined. Also the situation in which I was working (house in the country) was also very pleasing. On the whole, this mental picture suggested to me a comfortable, homey atmosphere in which I could work (write, in the case) feeling relaxed and interested.

Part II

1. Another mental picture I have of myself (which does not occur as frequently as the first) takes place in a court room. In this room there are many spectators, plus the picture I am the lawyer for the defendant and I am speaking to a witness on the stand. This picture is slightly vague and I can't remember too many details (such as the expressions on my face) but I know that I am not really in the center of the picture, the judge is. I am talking earnestly to the witness and I am pouring myself a glass of water from a pitcher. Everyone is listening to the proceedings raptly.

2. I feel that a career as a lawyer is not suitable for me. My father is a lawyer and often we talk about the subject of law and I feel that this has influenced this mental picture. I think that law is a fascinating subject and I tend to think along the lines of a lawyer but it is not my intended career. I think I would be much happier in a creative career (such as art, writing). I also feel that this is not a good career for women to undertake, as there is too much competition from male lawyers and a woman lawyer can't devote as much time to domestic and family duties as I would like to do.

Therefore, I am not particularly happy when I see myself in this career.

Part III

1. I am in an artists' studio, seated in front of a drawing board. Surrounding me are several rulers, etc. which indicate that I am, in this mental picture, a commercial artist. It is a fairly large room and other people are seated at drawing boards like myself. The atmosphere seems relaxed, for the artists, including myself are talking in low voices to each other. Whenever I picture this it seems like a close-up of myself from a movie-camera and then after a few seconds, the "camera" moves away and in my mind I see the room as a whole with the other workers in it. The studio is very plain and undecorated, although not shabby.

2. I felt very pleased when I pictured this because, compared to my other mental images of careers, this is the one which I think I am most suited for and would be most happy working in. The atmosphere of this dream was a mixture of both pleasantness and it was also a professional atmosphere. I believe that this atmosphere is a "happy medium" between my first image (writer-pleasant)- and my second image (lawyer-professional). Although I would prefer a more creative form of art for enjoyment, as far as a profession goes, I would prefer commercial art.

This is the most important image to me as it is the most desirable of the three I have described. I am the most talented in this career and I believe that it promises, economically, more than writing and would give me more free time than if I were to become a lawyer.

Part IV

1. I think I am a graceful person (a hobby of mine is dancing).
2. I contribute a lot in class (especially history and English).
3. I think I express myself well.
4. I think I am a creative person (art, writing, etc.)
5. I am basically a relaxed person.
6. I am usually not self-conscious in front of people except when I am talking about something I am not sure of.
7. I am friendly although I am not the "Polly Anna type" who loves everyone.
8. I think I am considerate of other people and I think I understand people fairly well.

9. I am good at my school work and I don't worry about marks as much as some of my friends.

10. I am not a very talkative person, but I can make conversation well and I participate in many discussions.

11. I am sometimes forgetful about little things, but I can remember small details about what impresses me very well..

12. I am not an "intellectual" but I think I am fairly intelligent.

13. I like things other teen agers like (rock and roll, etc.) but I do not over-do them.

14. I am imaginative (I think alot) to myself (I know I dream alot).

15. I think I can be humorous - I like to laugh alot and I make jokes alot.

16. I am a basically optimistic person.

17. I think I am fairly talented - I can sing, dance, and I am good at creative writing and art.

18. I like people to confide in me and I always try to keep what I hear to myself. I confide in others too, whom I know I can trust.

19. I am not conscientious about my schoolwork, but I am not lazy about it either.

20. I am not lazy physically - I like to work and I don't think I am a "quitter."

21. I like the feeling of independence.

22. I love the country, partially because I am an athletic person and also because I feel the surroundings are so much more pleasant than the city.

23. I am not a "sweet" person, but I rarely loose my temper and I try not to be deliberately nasty.

24. I am fairly strong - willed but I will give in in an argument if I know I am wrong. I try not to impose my feelings on anyone else but if I think I am right I will certainly say so.

2. 1. A lot of times I feel that people get over-excited and worried about things that are really unimportant. I take the attitude that I have a whole life to live and that one little upsetting incident is not going to affect my life at all.

2. I feel that my parents have brought me up well. My parents get along very well but my parents are different from each other. My mother is very nervous and high-strung and nags me quite a bit. My father is the exact opposite - he is very calm and he has never raised his voice to me yet - he doesn't have to because if he quietly tells me to do something I will do it right away. I prefer this to constant nagging which I resist all the time automatically. This is why I usually don't listen to my mother - I try to but it goes in one ear and out the other - and she gets mad at me all over again for forgetting what she says. I am an only child and I feel that my parents (especially my mother) feel anxious about me, but I know this is normal. I am closer to my father because we do not fight and because I am much more like him. I respect my mother's authority, I do not want to be like her. My parents give me a lot of freedom, but not too much.

Part I (New)

Projecting myself into the future - say 10 years from now, - I find myself to be about 26 years old, I am married, but there are no children. I am occupied in a specific profession, rather than a housewife. My husband and I live in an apartment in New York City. I work as a therapist (psychiatric) in a City hospital. At the present, I am particularly interested in the field of psychiatric therapy through the art medium. I feel that to work in a City hospital would be most pleasing to me, as I would make my services available to those who cannot afford medical care in a privately run hospital. I think I would enjoy this type of work, and have a great deal of enthusiasm for what I would be doing because I enjoy working with people and helping them. Right now I am a volunteer worker at Flower Fifth Avenue Hospital. I come in once a week and play the guitar for the children in the pediatric ward. Many of the children are very young, and, though they don't have any emotional problems they are bored with staying in bed. The younger ones are frightened at being at a strange place without their mothers. I noticed that singing is a good way to get the older children in a better mood. They enjoy singing and show a great interest in the instrument (guitar) itself. I let them handle it and "play" it.

Emotionally disturbed children would also enjoy singing, but, it is not a medium through which they can express their own, individual thoughts and feelings. However, art is an excellent medium for self-expression, and may be used successfully in psychoanalysis as well as therapy, as far as I have reasoned.

Because such work as I have described in the beginning of this paper combines the kinds of work that I enjoy doing (and do best) I feel I would, (at the present) be best suited for such work.

3. Interviewer's Comments.

The interviewer made the following observations concerning this student:

> "She seems to know herself; knows she's interested in psychology and art. She has considered the possibility of relating the two, in art therapy. Won't commit herself further because she doesn't know enough. Sees both marriage and career as important; should not exclude one or the other. On page 3 she expresses her feelings of confusion concerning education, psychology and art. Is aware of the need for information--will seek out a professor to gain this. At the top of page 4 she makes an interesting comment: 'You have to go through the process of elimination with yourself.' That is, you have to know yourself very well. Also, she is aware of the outer demands of the situation: you have to be very good in certain artistic fields. For a long time she has been told by her strong, dominating mother what to do; now she's looking for a looser field in which she doesn't have a boss telling her what to do. She shows a need to be productive--to teach art in college, to use her art in a constructive, practical way. She is mature: knows herself, that the home comes first, that she doesn't have enough dedication to go into medicine. She feels secure in knowing that she really wants to relate her work to art, to be in art."

4. The interview.

The verbatim transcript of the tape-recorded interview follows:

C. ..., you're beginning to get near the end of high school aren't you; you're what, in 11th grade at this point?

S. Yes.

C. Which I imagine has given you some food for thought and you're beginning to think about what your future will be like, or what you're going to do in the future. Ah, I know it's not possible to really be sure and to know exactly what it is that you want to do, or that you can do. But I imagine you've thought about it, and dreamt about it, and even imagined or even just fantasied what it could be like. I wonder what it is you think you might be doing, or what are some of the things that you think your future might be like; and how do you feel about some of these things?

S. Well, so far, I've pretty much made up my mind that my major interest is in art, and I think I want to major in, and possibly the last two years of college I want to major in art. And, ah, I'm really not quite sure exactly what I want to do with it: Ah, I think either teaching, which I would really like, or I've been sort of mulling over in my mind a very vague sort of occupation, a very vague sort of field actually ah, analyzing -- I'm interested in also working with disturbed children. And I've thought I was going to have problems bringing these two interests together. And I haven't, to tell you the truth, read too much about this field but ah, it might be helpful to analyze children's drawings -- the drawings of mentally disturbed children and sort of diagnose according to the results. But really as I said before, I'm really not so sure that this could be done effectively or not. It might be just a .... (?) hope. But I think that I want to take psychology courses in college too.

C. How do you feel about it?

S. Well, I'd like to teach a course. And I told you about how I felt about the other. You know I don't know whether it's possible or not. I really have to talk to somebody who knew something more about........(?)

C. You feel you need to explore more, a little bit?

S. It sounds like a very interesting field. I think something could definitely be done with it. You know, I've read something about a boy who was mentally disturbed, through birth -- just one kind of.....(?) This was very easy to observe, but I don't know how effective it would be with more subtle drawings, more subtle pictures. But then again, when I think of this field, as much as I would be interested in it, my major work is going to be in art, and this is really psychology. And I don't know whether I have the ability, first of all, to do this, or the interest to do this every single day of my life. And then working with art--I would like to paint and draw.

C. In other words, you feel more sure of yourself in the field of art than you do in working with people, for example, or in--

S. Not necessarily working with people, but working in this field. And also, you know, when I think about it, I can make a positive statement about art being my major interest. But I don't know whether psychology really--the other field of interest--I don't know whether this would exceed my interest in art. I doubt it. So I think in order to do something, to work with disturbed people, that has to be your primary interest. And although I would like to do that, I really don't know whether I would be interested and engrossed enough in that kind of atmosphere every day. Which is--you know, I feel that your career, besides your marriage, is the most important aspect of your life, every day. And when I think of what I've been doing for the past couple of years, in preparing myself for my career.

C. Have you been preparing yourself for marriage too?

S. Well, not really. As far as education is concerned, I'm preparing myself for college.

C. So that in a sense, when you thought about the future, you thought about something related to art, something possibly related to psychology--I guess a form of art therapy is what you're talking about--you thought about college, you thought about marriage too.

S. Yeah. I think as I said before that marriage and career are the two most important things. Marriage, I suppose, especially in a woman's life. But still if you have a strong interest, I think you should do it if possible.

C. You thought of the kind of future preparation you're going to have?

S. Well, I'm trying to look around now to see the college that would offer good Fine Arts courses. And I'll try hard to--. But I think wherever I wind up I'd like to major in art in my sophomore and junior years, and take plenty of Ed. courses and Psych. courses. And I think once I've taken Psych. courses, it's like I can get to talk to some professor wherever I am, so he has to guide me in a better direction than I am now.

C. In other words, you say you're not committing to anything at this point, but you're going to--.

S. I would rather not commit myself.

C. In other words, what you're saying is that you'd rather explore a little further in the field. You seem much more sure of yourself with art and much more interested in art than even in art therapy; but it's something you sort of want to consider in some way. Ah, do you and your friends ever sit around and talk about what you think the future will be like for you?

S. Well, not too much, actually. We took the College Boards--there's that coming up soon. As far as careers, I know just, you know, through knowing my friends so long, I know what their interests are. I have a vague idea of what they want to be. And through the tests...the written tests, we discussed it, it has provoked discussion. I'm really not too sure about them, what they want to do.

C. You don't think that far into the future. You stick to the immediate future, like college.

S. Yeah, we don't sit down and have a discussion about what we want to be when we grow up. It's more or less concerned with college.

C. And marriage too?

S. I suppose so (laughs).

C. How do you feel about some of these things in the future? What are your feelings about being an artist and what are your feelings about possibly being in love. When you think about them, how do you feel?

S. Actually, I think in the arts--if you go into any one of them, it's very hard. You have to go through the process of elimination with yourself. I haven't got to this stage yet. I'm not prepared. You have to eliminate fields you wouldn't care to be in, or fields you're not good enough, say art, and music especially......(?) How many people going down to the unions and just sitting around and waiting. You have to be very good if you're going to, in the performing arts to perform, or say in commercial arts--you have to background in a place like Pratt, otherwise you're not considered much. You have to have a certain amount of personality for that field. And you have to have a certain inclination in your art. I personally wouldn't care to go into the commercial field, even if I felt that way, my personality would enable me to because I prefer a much more creative mature loose form of art, than what your boss tells you to do. I don't think ads for Savarin coffee are particularly stimulating to the imagination, although they could be to some people, but not to me. I don't think that teaching is the easiest way out of it. I don't feel that way, because no matter what I was doing, I'd like to teach anyway. But especially I think this is one of the greatest challenges, to teach, especially on a--I think I prefer to teach on a college grade, because it has more room for the teacher to really get something across. Art in high school is a minor, and you get a mixture-a heterogeneous group of talented people and people who aren't interested. That's a challenge. But college art is for more serious people usually. I think if I get good enough, I'd like to teach art in college.

C. So that actually there is a third thing, aside from actually art and aside from art therapy, there is a possibility of teaching art in a school.

S. Yeah, the only other thing I could think of doing is just painting and selling the paintings. But it's a very funny thing: I hate to part with a drawing or painting if I like it. And if I don't like it, I don't like to sell it. And in the second place if you want to make money, it's not very reliable as a source of income.

C. So you have to consider the practical aspects of your future, too?

S. Also, I think I'd like to apply my interest in art. Number one, I'd like to spread it; and two, much as I'd like to sit home and paint, I think there is more to an art than just to do things. You have to do something with it, I think, unless you're a Rembrandt or Da Vinci or someone like that. Especially since there's no great modern--. I think you should work toward doing something with your art, productively.

C. In other words you feel a need to be productive also in whatever it is that you do?

S. Yeah.

C. This need to be productive--do you find that your other friends feel sometimes the need to be productive, to do something worth while?

S. I think the trend now, at least in my age, is not to be a housewife, to be something whether you're talented in any particular field or not, if you have

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S. any interest in any field, you should try to advance your education to the level where you can go at it and have a job. There are a couple of my friends who are interested in teaching.......(?) Almost every girl I talk to has an inclination toward being a teacher. Even in professional fields, certain girls that I know, are considering working in these fields........(?)
C. So in a sense you can feel yourself as a housewife but not just as a housewife.
S. Yeah. If I was interested in medicine I might consider going to medical school. But I don't think I would like that much of a professional life. I'd like a sort of balance between a career and a home.
C. You feel that to go into medicine requires too much dedication?
S. I guess so. I would like to concentrate much more on my marriage than a woman doctor could afford to.
C. You've thought about that in some way?
S. No, I'm just giving it as an example. I couldn't be a doctor--I'd be--the stomach...(?) I've pretty much decided what my field is, I think.
C. Of all of these, which one have you decided more so than others?
S. The field of art.
C. In other words, you're going to use the art somehow in some way.

Extended Interviews.

Two series of extended interviews were conducted over a period of three months, with a 16 and a 17-year-old boy from a high school in New York City. One boy was interviewed five times, the other six times. The interviews, running about one hour each, were tape recorded and later transcribed. The boys' mothers were also interviewed.

We hoped to ascertain whether the maturity scale, which had been developed through applications of dimensions to questionnaire material, could also be applied meaningfully to interview data. The interviewer attempted to analyze the verbatim interview material in terms of the eight modes of process expression in SCALE II. She found that much of the interview material fell under the first six modes. A great deal related to Mode A--Awareness, and a decreasing amount fell under each of the subsequent modes, through Mode F--Value Orientation. The last two modes--Direction and Focus, and Integration--were notable in their absence in the interview material. The application of SCALE II facilitated understanding of the students' verbalizations, particularly the dynamics of their avoiding and grappling with the problem of making vocational decisions.

During the course of the interviews, the students progressively showed evidence of relating the self more effectively to the vocational situation. Maturation appeared to occur along the sequence of modes of process expression in SCALE II, with greater elaboration found in later interviews of material subsumed under modes farther down the scale.

As the interviews developed increased feelings of inner security, they showed somewhat more appropriate role identification and seemed to be on the way toward intelligent vocational decision-making.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

I. Aspects of Maturity and Immaturity Revealed in the Study

The Prevalance of Immaturity in the Vocational Thinking of Adolescents.

One of the outstanding impressions gained from working with high school students is the ubiquity of immaturity in their vocational thinking and imagery. Both questionnaire and interview material of this year's research, as well as earlier protocols, is characterized by confusion, stereotyped outlooks and aspirations, infantile omnipotent fantasy, and similar indications of lack of maturity. Pervasive, underlying factors are involved as well as surfact manifestations.

Methods of Dealing with Vocational Immaturity.

1. In attempting to get at, understand and deal with the genuine vocational thinking and fantasy of adolescents, we have relied primarily this year on a semi-projective type of controlled composition. It is evident that this instrument reaches a deeper level of involvement and fantasy expression of students, than do more structured methods. It elicits material which is authentic, comprehensive and meaningful; which can be used to develop and refine instruments for measuring maturity; and which can be used to help students better understand themselves.
2. The research this year has produced insights on how to be more effective in reaching students at significant levels, to elicit vocational material and to enhance their awareness and understanding of themselves.
   a. The present instrument could be administered at the high school level more effectively by carefully structuring the situation and

managing the various resistances and anxieties which inevitably arise. This would require administration by a sensitive, experienced counselor. It would also require acceptance and cooperation by the school. The suggestions made in this report for the management of administration should be tested out in a variety of situations and refined.

The instrument can also be used by teachers and guidance personnel in a more superficial way.

It is hoped that standardized procedures can be worked out after further experimentation, so that the instrument can be used generally in high schools.

b. Administration of the questionnaire should be alternated and combined with intensive individual and group counseling and follow-up over a period of several months.

c. The questionnaire should be revised by including more structure, examples and explanations, for use with grades 7 and 8. The present form is somewhat too difficult for these students.

d. In using the instrument and the material which it elicits, greater emphasis should be placed upon helping students learn to understand themselves and to try to work out their own vocational decisions.

e. Other forms of the questionnaire which were developed during the year, should be tried out and evaluated.

f. New and different instruments which can be used together with the present questionnaire, should be experimented with.

Maturity and its Measurement.

1. The major scale developed during the year, SCALE III, while still in tentative form, gives important clues to the nature, development and measurement of vocational maturity.

   A first and necessary step in vocational thinking and maturation involves achievement of awareness and understanding - at first separately - of oneself and of the vocational situation. Self-awareness is one of the crucial aspects in our conception of maturity.

   From here, movement toward maturity occurs in two directions: in making connections between the self and the situation at this level, and through moving (separately) in self and situational areas toward differentiation and individuation. Connections are later made between self and situation at this level.

   These processes in Modes A and B of SCALE III are primarily cognitive. The progressive continuum does not include Mode C--Emotional Tone and Coloration, and Mode D--Value Orientation, which are predominantly affective. It moves to Mode E--Direction and Focus and continues through F--Integration and G--Developmental Potentiality.

   This, of course, is an abstracted "ideal" picture. In actual cases, movement is not this regular or clear-cut.

   But generally in the process of maturation there appears to occur this dual movement, through the various modes and toward the increasing relationship and integration of self and situational aspects within the modes.

2. It proved possible for judges, despite many difficulties, to apply this scale successfully in the assessment of vocational maturity in adolescents'

protocols. The scale was also applied meaningfully to interviews with high school students.

General Summary and Interpretation of Project Outcomes.

As protocols are read and analyzed, a variety of impressions are received. The conviction grows that most of these adolescents are transmitting authentic, significant and useful information about their vocational outlooks and stages of development. One of the first conclusions that most judges seem unable to avoid is the stereotypy, fantasy and immaturity manifest in a number of the protocols, even among 11th and 12th grade students. That this may be a function of the instrument itself is a possibility that cannot be altogether discarded even when different forms of the instrument and interview processes tend to bring out similar material. Yet evidence seems to be continuously present, as one reviews the protocols, that a number of these youth (a) have weak and poorly formed self-definitions and identities even allowing for their age range and lack of experience (b) are assimilating crude stereotyped notions of life and of occupational requirements (c) are adopting (with inadequate reference and relevance to their own needs, aspirations and characteristics) the ideas of parents and of peers (d) have been insufficiently affected by what guidance they may have already had (e) are ignorant of appropriate ways of differentiating and integrating themselves as independent entities and of arriving, through cogitation over a period time, at suitable, feasible, satisfactory and serviceable self-situational accommodations in the world of work.

II. Future Research Possibilities

Through this single instrument, as yet far from being perfected, there has been disclosed a whole area of phenomenological data which seems to call for a great deal of further exploration in several directions:

a) manifestations of different stages of development and maturation according to age, sex, social class, intelligence, life experience.

b) introspective data (procured through interviews as well as instruments) as to mechanisms and processes that are operating in different kinds of vocational outlook, different levels and profiles of maturity, and different types of psychodynamics.

c) effects of special programs of guidance and counseling designed to involve high school students in appropriate self-situational study and in maturation of their own outlooks.

d) the socio-psychological characteristics of vocational development in our society: interrelations of personal dynamics, family conditioning, educative experiences and social influences.

Through a not altogether accidental coincidence, opportunity for preliminary exploration of the effects of specially devised programs of guidance and counseling on vocational outlooks will be attempted in several junior and senior high schools in New York City during 1962-1963 as a follow-up of the experimentation here reported.

III. Theoretical Issues

Several important theoretical issues are raised, or revived, by the current investigation:

Nomothetic vs. idiosyncratic formation of identity.

Protocols procured in this investigation give plenty of evidence of similar forms and stages of identity through the play of common influences on undeveloped personalities. (This in line with findings by Ginzberg, Super, etc.) Yet, at the same time, there is also a good deal of evidence of individualizing tendencies and differentiating processes in the psychology of the pupils studied. (In line with Tyler's findings). One simple inference is that youth is struggling to form true self-identities within the given framework of opportunity and demand.

Linear-progressive vs. irregular-inconstant-eccentric development of vocational outlook.

There is little evidence on either side of this issue in the current block of data. A number of protocols do reveal differences of outlook according to grade level and the common demands of the educational system for decisions at fixed points, together with prospective opportunities held out by college attendance, etc. Although different factors or dimensions of maturity could be logically arranged in "ascending" order, the sampled populations on different age levels were not numerous enough to provide evidence of well-marked levels of progressive development successively attained by individuals as they advanced through various life and school experiences. In a few protocols there seemed to be indications of attempts by individuals (however crude) to form synergies out of personal aspirations, interests, values, needs, etc. in accommodation with perceived situational possibilities. These may represent what Super designates as both "tentative choices" and "reality testing". It is in the process of synergistic trial as disclosed in some protocols in this research that a significant clue may be provided for further investigation and for guidance practice in the schools.

Chronological development vs. experiential development.

These aspects are difficult, if not impossible, to separate in view of the obvious fact that in our society many common experiences are graded according to chronological development of school children. Thus, as was indicated in the previous section, youngsters display common phenomena of situational press and personal decision-making connected with choice of school programs and college opportunity. If further research, however, discloses maturation of outlook through systematic, planned educative and guidance experience, cutting across age ranges and common school experiences, then we might be able to make assumptions that current evidences of immaturity are not necessarily inexorable products of our school system, of our form of society, or of physiological-psychological stages of development. Some evidence occurs in our protocols that youngsters are interested in self-situational examination, that they can be further stimulated to engage in such study, and that useful experiences may be gained through counseling and interviewing to assist in maturation. As previously indicated, this hypothesis will be further tested in actual field experimentation during the coming academic year.

Unconscious vs. conscious maturational influence.

Eventual contributions to this important issue may be one of the most significant outcomes initiated, or furthered, by the current investigation. In the nature of the instrument itself and the contents produced in protocols, there seems little question that a semi-projective form like "What I Think About Myself" penetrates to a subjective level where conscious and unconscious contents combine. If undue anxieties, fears and resentments can be largely avoided and if cognitive processes can effectually be brought to bear in favorable review of personal values and aspirations (subjectively derived from unconscious complexes and systems over a period of time) then processes of individual maturation may be aided systematically and usefully through educative practice. If students themselves can become interested in this process, if counselors can be trained to conduct it effectively, and if outcomes can be evaluated accurately, a means may be at hand to advance considerably beyond personally and socially wasteful forms of vocational development and adjustment, in which many individuals rather blindly stumble into careers that may or may not be too satisfactory to them as individuals, or maximally serviceable to society.

APPENDICES

APPENDIX A

WHAT I THINK ABOUT MYSELF
Part I (new)

What do you suppose the future holds in store for you? Writers have always been fascinated by this question. Some have described the future in various ways. They have written about how people might live, work and feel in the future.

Of course we don't know, we can't know what is really going to happen to us. But we can try to predict what is going to occur, from our knowledge of ourselves and from an understanding of what opportunities the world presents for us. Attempting to do this can be fun, and it can also be informative. We can learn more about ourselves while we think about our future.

Right now, we would like you to put your imagination to work just as many writers have, but with YOU at the center. We want you to develop a sense of curiosity about yourself. What will you be like and what will you be doing at some time in the future?

Turn your imagination loose. You are in the future now--the world may be quite different. What are you like? What are you doing? How do you feel?

Relax, take your time. Think about yourself in the future. Write down whatever comes into your mind. (Use the front and back of this sheet)

FIRST ORDER INFERENCES: MODES OF PROCESS EXPRESSION

APPENDIX B

1. Incorporates training and learning in approach to visualized occupation.
2. Visualizes work as a part of the occupation.
3. Perceives self as a part of a cooperative effort.
4. Projects rather vague and generalized stereotyped fantasy.
5. Introduces a past time dimension.
6. Brings in a prestige element.
7. Differentiates self from others.
8. Expresses independence of family.
9. Incorporates value references.
10. Manifests ambivalence, conflict, contradiction.
11. Mentions a number of disparate occupations.
12. Attaches an emotional element to thought of occupation.
13. Realizes conflict of fantasy with reality and rejects fantasy.
14. Fastens upon a meaningful symbol, expressing a value system.
15. Synergistic movement combining interests, values, emotional needs and hopefully, abilities into a satisfying outlook or decision.
16. Recognizes changes of mind and fluctuations of interest.
17. Reveals basis for indecision and "wish dynamics" together with "other" reference.
18. Recognizes lack of outlook, hopes for the best.
19. Displays movement toward realistic advice and acceptance.
20. Introduces a future dimension in realistic terms.
21. Indicates a feeling of urgency about need for decision.
22. Voices asperational drive toward occupational mastery, achievement, pride.
23. Manifests certainty and consistency of choice and confidence in self to achieve.
24. Reiterates vocational choice.
25. Reveals poverty and meagerness of ideas, information.
26. Attempts (or reaches) some degree of self-definition, insight.
27. Acknowledges influence of instrument in stimulating thought about future.
28. Manifests realistic thinking.
29. Reveals evidence of study, thought and possession of information.
30. Recognizes lack of information on careers.

APPENDIX C

MODES OF PROCESS EXPRESSION

I. WORK

A. Consistent--Inconsistent
Integrated--Conflicted
23. Manifests certainty and consistency of choice and confidence in self to achieve.
24. Reiterates vocational choice.
__________10. Manifests ambivalence, conflict, contradiction. (vs. 23)
__________11. Mentions a number of disparate occupations. (vs. 24)

B. Realistic--Unrealistic
28. Manifests realistic thinking.
19. Displays movement toward realistic advice and acceptance.
__________4. Projects rather vague and generalized stereotyped fantasy.

C. Synergistic--Non-synergistic
15. Synergistic movement combining interests, values, emotional needs and hopefully, abilities into a satisfying outlook or decision.
1. Incorporates training and learning in approach to visualized occupation.
29. Reveals evidence of study, thought and possession of information.
2. Visualizes work as a part of the occupation.
__________25. Reveals poverty and meagerness of ideas, information.

II. AFFECTS, VALUES

A. Emotional--Unemotional
12. Attaches an emotional element to thought of occupation.

B. Aspirational--Non-aspirational
Motivated--Unmotivated

22. Voices aspirational drive toward occupational mastery, achievement, pride.

C. Valuing--Non-valuing
9. Incorporates value references
14. Fastens upon a meaningful symbol, expressing a value-system.
6. Brings in a prestige element.

MODES OF PROCESS EXPRESSION

III. SELF

A. Self-aware--unaware
   13. Realizes conflict of fantasy with reality and rejects fantasy.
   16. Recognizes changes of mind and fluctuations of interest.
   17. Reveals basis for indecision and "wish dynamics" together with "other" reference.
   18. Recognizes lack of outlook, hopes for the best.
   30. Recognizes lack of information on careers.

B. Self-differentiated--undifferentiated
   7. Differentiates self from others.
   8. Expresses independence of family.
   26. Attempts (or reaches) some degree of self-definition, insight.
   3. Perceives self as a part of a cooperative effort.

IV. TIME DIMENSION

A. Aware of (concerned about) Past--Unaware (unconcerned)
   5. Introduces a past time dimension.

B. Aware of (concerned about) Present--Unaware (unconcerned)
   21. Indicates a feeling of urgency about need for decision.

C. Aware of (concerned about) Future--Unaware (unconcerned)
   20. Introduces a future dimension in realistic terms.
   27. Acknowledges influence of instrument in stimulating thought about future.

APPENDIX D

SCALE I

Revised MATURITY CRITERIA

I. WORK

- A. Conception of Work (cognitive):
  - 1. Awareness of necessity of making choices.
  - 2. Understanding of related world of work:
    - Knowledge of available resources of information
    - Accurate, organized, integrated knowledge of specific details of occupations.
  - 3. Understanding of one's capacities and limitations.
  - 4. Congruence of capacity and choice or interest.
  - 5. Recognition of the amount and type of work and effort needed to approach or attain goal.
  - 6. Awareness of occupation's importance to society

- B. Attitude toward Work (affective):
  - 1. Seriousness of concern: taking responsibility for making an appropriate choice (vs exclusive concern with adventure and pleasure)
  - 2. Drive: willingness to expend the necessary effort in study, work and preparation
  - 3. Optimism: confidence or belief in attainability of goal
  - 4. Enthusiasm: positive interest in work and feeling a personal relationship to the occupation.
  - 5. Motivation: level and quality; e.g. concern for intrinsic rewards from the activity itself rather than from more superficial aspects such as money and prestige.

II. IMAGERY

- A. Consistency of Imagery:
  - 1. Images meaningfully related to each other, within a given occupation or between two or more occupations.

- B. Experiential Basis for Imagery:
  - 1. Images and symbols derived from personal experience and involvement, rather than from superimposed stereotypes, mass media.
  - 2. Images tied to models, idealized persons which are drawn from relevant personal experience.

- C. Reality of Imagery:
  - 1. Reasonable possibility of attaining the imagined goal.
  - 2. Recognition of difference between fantasy and reality: recognition of unrealistic images as such.
  - 3. Absence of unrealistic vagueness, confusion, wild vascillation

- D. Emotional Quality of Imagery:

  - 1. Ability to relate personal feelings, emotions to images.
  - 2. Spontaneity, openness, frankness of fantasy.

APPENDIX D

Revised MATURITY CRITERIA

III. SELF

A. Self-Concept:
  1. Self-awareness
  2. Self-acceptance
  3. Self-esteem, self-confidence
  4. Objective, balanced view of self (including both positive and negative self-references)

B. Implementation of Self-Concept
  1. Self-determinism: a certain amount of independence as opposed to complete reliance upon others.
  2. Congruence of self-concept with interests and goals.

C. Self-Other Relations:
  1. Ability to communicate with others.
  2. Concern for others as well as for oneself, but not in excess.

IV. FUTURE

A. Future Orientation:
Ability to project into the future, as opposed to an exclusive concern with the present; but not in order to escape from present realities.

B. Planfulness: consideration of various preparatory and intermediate steps necessary for arriving at goals.

C. Optimism: serious expectation of achieving part or all of goal.

D. Intensity: strength of drive toward goal.

APPENDIX E

SCALE II

RATING OF MODES OF PROCESS EXPRESSION IN VOCATIONAL IMAGERY PROTOCOLS

As pertaining to: (a) The Self (b) The Vocational Situation
(c) The Relation of Self to Vocational Situation

CHIEF MODES TO BE RATED	CHARACTERISTICS OF THE MODES
A. AWARENESS	SELF: Awareness of need to think about self and its characteristics in relation to vocation. SITUATION: Ideas about vocations are beginning to emerge from background of vague ideas or fantasies. Vocation is recognized as realm requiring study. Considerable fantasy may still exist and information may be meager. SELF-SITUATIONAL RELATION: Awareness of incongruence of self characteristics with situational demands, or of actuality with imagined relations. Recognizes conflict of vocational images. Self and situational factors are beginning to be linked, however roughly. Need to choose or decide is recognized.
B. ANALYSIS INSIGHT UNDERSTANDING	SELF: Personal characteristics are analyzed; self-definition is underway and a self-concept in process of formation. Self references are becoming more varied, detailed, significant and relevant. Both positive and negative aspects of self may be considered. SITUATION: Vocational possibilities are being analyzed. A range of information and situational data is manifested in contrast to meagerness or complete lack. Individual knows about required choices. There is understanding of work conditions and requirements. SELF-SITUATIONAL RELATION: Study, thought and investigation of self-situational connection is being made in more analytical and factual terms. Relevant questions are asked about personal characteristics as related to occupation and vice versa. Present stage of development has been considered and decision made to reach choice or postpone it. There is conscious attempt to analyze self in relation to demands of specific vocational preference and to work toward a congruent choice. There is understanding of amount or type of work and effort needed to approach or attain desired goal.

APPENDIX E

C. DIFFERENTIATION

SELF: A process of individuation is proceeding. The self is being differentiated from vague, general stereotypes or fantasies. Self-determinism is manifested as opposed to reliance upon outlooks of others (peers, parents, etc.) Ideas about self are gained from personal evaluation in contrast to assimilated stereotypes.

SITUATION: Accurate, organized knowledge of specific details of vocation is being assimilated. Ideas are becoming more clear and connected. There is recognition of particular abilities required. Ideas are based on personal exploration and experience.

SELF-SITUATIONAL RELATION: A distinct personal-vocational pattern is emerging in which individual identifies satisfactorily with a rather clear vocational outlet. Both self and situational considerations are being considered in relation to each other, recognizing possible change may be needed in either or both.

D. MOTIVATION

SELF: Responsibility is accepted for choices and decisions. There is motivation toward achievement as against indifference or negativism. Willingness to exert effort, study, prepare, work, gain experience is manifested.

SITUATION: Need to acquire information, and or make further study or exploration is recognized. Individual accepts fact that effort, training, experience will be demanded. Appreciates that personal accommodation to situational requirements may be necessary.

SELF-SITUATIONAL RELATION: Positive interest in and drive toward preferred vocation is manifested. Approach to occupation is seen as involving effortful preparation. Accommodation of self to occupational demands is seen as possible necessity in contrast to fantasy thinking in which self is magnified and centralized. Appropriate status of self in relation to social obligations and responsibilities is recognized. Satisfaction through relating to the situation, to exploration, planning and action is preferred in contrast to satisfaction through wishing or negative morbidity.

E. EMOTIONAL TONE, COLORATION

SELF: There is spontaneity, openness, frankness, vitality and vigor. Coloration of self-perception is positive. The tone is optimistic and serious expectation of goal attainment is present.

SITUATION: Positive interest and anticipated gratification accompanies idea of goal. Personal relationship is felt to the visualized occupation.

SELF-SITUATIONAL RELATION: Confidence in attaining goal is strongly felt. Feeling is conveyed that person is genuinely involved, is "set", committed, and "on his way".

APPENDIX E

F. VALUE ORIENTATION

SELF: Orientation upon prized personal values is revealed and there is concern for others as well as for oneself.

SITUATION: There is appreciation of the social significance of considered occupations; idea of social contribution or service is present.

SELF-SITUATIONAL RELATION: There is recognition of appropriate status of self in relation to society and to social obligations and responsibilities. Also a realization of developing individividuality and its meaning in personal life and performance. Self is organizing around a core of dominant themes or values.

G. DIRECTION AND FOCUS

SELF: Wild vacillation and confusion are not manifested. Contradictions and ambivalences are being resolved. Interests, values, aims not strongly in conflict.

SITUATION: There is pronounced directional trend and goal orientation, more or less unified. Focus is upon one or two studied fields as opposed to wide scatter.

SELF-SITUATIONAL RELATION: Idea of personal study, planning and preparation in approach to desired goal is incorporated. A future orientation is introduced in realistic terms in contrast to exclusive concern with the present; but not in order to escape from present realities. Individual displays planfulness in consideration of various preparatory and intermediate steps.

H. INTEGRATION

SELF: Ideas about the self are being cohesively combined in significant ways. Individual is moving toward a coherent and personally acceptable self-perception and definition.

SITUATION: Individual's ideas about vocational possibilities and requirements have coalesced around a core of significant and relevant aspects of vocation that are important to him.

SELF-SITUATIONAL RELATION: Self is finding personal integration and resolution of conflicts and contradictions through satisfactory vocational outlook or expression that synergizes personal characteristics, vocational requirements and circumstantial conditions. The self-situational accommodation is not necessarily perceived as fixed or final but may be open to further progressive change.

APPENDIX F

"ILLUSTRATIONS OF THE FACTORS DERIVED FROM PROTOCOLS"

A. AWARENESS

SELF

"In contrast to Experiment I, I see no clear inside of myself doing any particular thing...I see myself eating, sleeping and surviving. In realism I am puzzled and hope things will be more distinct in my life."

"Again I have expressed my indecisive mind which prevents me from eliminating many ideas or thoughts."

"....it came to me that I was a little mixed up."

"This picture (reporter) remained with me for quite a while, but then I saw it could never materialize because of my inability to put it down in words." (Too low self-estimation?)

"I felt I could go out and talk to people to get a good story from them (reporter) but that when I went to write it up it would lose some of its spark, flavor, because I don't think I write well I would rather talk."

SITUATION

(After imagining award at a fashion show for design of the year). "Again I wake up to find myself relieved that I have not yet chosen how to go about getting it. I want to be different and effective more than anything...I can't help hoping something will come along so that I can adapt myself to and be satisfied if that is ever achieved....I want to be happy in my decisions and yet I want my family to be proud of my decision and respect it."

SELF-SITUATIONAL RELATION

"I've really had two pictures and I don't know whether I want to be any of them. I picture myself once on a construction job and the other I was a teacher. The construction job wouldn't be good when I get old. And I don't know whether I want to be a teacher."

"I think that what I have seen and felt can at times come true and at others not come true. For instance, I see myself in the job of a mechanic. I am about sure that it will come true for I am now training."

"I have two pictures of myself and each one so different from each other that it's like comparing black and white. One picture is very common and very possible, the other I callwishful thinking...."

"I have to make up my mind now before it's too late to do anything."

APPENDIX F

B. ANALYSIS--INSIGHT--UNDERSTANDING

SELF

"I am the type of fellow that enjoys people, I like most everybody because I adjust myself to different people...Sometimes I get the feeling of being an underdog when there is no reason to feel this way.. Then there are times I feel extremely happy when nothing out of the ordinary has happened to me. Consequently I have different moods. I try and not let my moods get the best of me."

"When I was dreaming last night of what I was going to write, it came to me that maybe I was a little mixed up. I thought that I wanted to be a doctor of some sort. Then I thought of all the dull hours I have to spend at night studying and racking my brain, trying to pass the next day's examination. Maybe this is what I'll probably land up doing for the reason it will pay off. But when I went into a fantasy world I kept thinking of becoming a dancer. I never mentioned this before in my other two reports, because I never thought I would go this deep into my thoughts."

SITUATION

"My knowledge of cars and trucks is good...the field is very large and is hard to get into but is not hard if you know and really know your stuff...the thing is to get into the union of some large firm...after this the best thing to do would be to open your own small shop and build it up gradually."

"I wonder if I will succeed or fail in the line of work I choose, will I make enough money to support a family, and is there security in the job or career I chose for myself?"

"I pictured myself in a big department store such as Macy's showing blouses to some customers. I was picking up a blouse from a display and showing this woman the details of the article."

SELF-SITUATIONAL RELATION

"I decided to become a chef when I started cooking things for supper and other meals. I felt since cooking is the only thing I liked and could do well, I would try to become one. Not many people are going into that field, and it is a man's profession anyway." "I hope I can get a job as I pictured myself, that is, after I go to school and study for this type of work."

C. DIFFERENTIATION

SELF

"To me it is a very interesting subject, to others it is a very dull."

"My mother...tells me to look up to my sisters (two teachers) and to imitate them...I tell her I'm not a monkey to mimic other people, I want to be myself... but who am I?"

"My family....cannot see me in this field, traping all over the world digging at old ruins and such, they don't think it's practical."

"I like the feeling of independence."

"Often I feel my mother is over-protective and that she doesn't realize how badly I want to go certain places."

SITUATION

"A lot of guys talk about going into the armed forces. I sometimes think about going into the army but I guess that's not the answer to my problem."

"That's a hard question for me...when that subject comes up I close my mouth. I haven't dreamed in a long time, maybe that's why I haven't dreamed, because I have no plans of the future. Maybe if my marks are high enough I can go to college but I've done a pretty good job...of killing that angle."

"Since last week I have done much thinking on this career. I have already talked to a friend of mine who works in an ad agency. I have explored the different fields in advertising -- reference, rough drafting and ideas appeal to me."

SELF-SITUATIONAL RELATION

"The ideas I often have about myself are always the same. I want to be a cook. So far even writing down these experiments on paper on what you want to be hasn't changed my mind about it."

"I always seem to picture myself as an automobile mechanic. I am happy when I am around cars or trucks. My knowledge of cars and trucks is good..."

"Being able to solve other people's problems is a wonderful thing to be able to do, and greatly satisfying. But first, one must be able to solve his own problems and this is something I must accomplish first."

D. MOTIVATION

SELF

"I had the feeling I was a nurse, doing something worthwhile. I have always felt that nursing was such an honorable profession, something to be looked at. And that is what I want, to be something, to do something worthwhile. A great fear of mine is that I'll never accomplish anything."

"I feel this vision of myself so strong I am positive that I will succeed in what I want to be."

SITUATION

"If I can have this occupation (doctor) I will feel that certain inner feeling you get when you know you did something worthwhile. This is my reason for helping people. I get that certain feeling which I would like to have through my whole life."

SELF-SITUATIONAL RELATION

"I want to be out of school and on my own...the trade is worthwhile...it offers security...The thing I think about most is becoming an adult."

"I feel that this is what I would be suited for because I would put my whole self into it."

APPENDIX F

E. EMOTIONAL TONE, COLORATION

SELF

"I am fairly strong-willed but I will give in in an argument if I know I am wrong."

"I have a whole life to live and one little upsetting incident is not going to affect my life at all."

"I think I express myself well."

"I am basically a relaxed person."

"In this picture I have self-confidence and I feel that what I am saying is right."

"I feel very elated, happy and proud; I always feel quite sure of myself."

SITUATION

"I felt good as I always feel when I think of myself as a teacher."

"I felt as though I was doing something I really wanted to do in writing."

"I want a career that I will enjoy getting up in the morning for."

"I enjoy creative work and constantly changing work. I like designing things."

"I feel that this is something I would enjoy doing; fighting for the rights of people."

"I feel that I belong in this atmosphere, with many years of college and law school as a support."

SELF-SITUATIONAL RELATION

"I felt that it was very *real* and *possible* and *wonderful*. I felt sort of excited at the prospect of having a career and being a housewife and mother at the same time."

APPENDIX F

F. VALUE ORIENTATION

SELF

"I like people to confide in me and I always try to keep what I hear to myself. I confide in others too, whom I know I can trust."

"I like everyone and look for the good points in people."

SITUATION

"...in any job what I want is excitement, something different, not a monotony... being out there when something happens."

"In every one of these three dreams I picture myself as just a common middle class man with a family, and with this picture I am satisfied completely."

"The field of medicine I have been told is a safe and secure profession."

"I feel proud fighting for justice. I picture myself as a criminal defense lawyer, fighting for what I think is right."

SELF-SITUATIONAL RELATION

"I see myself as a person who helps people that are handicapped or in trouble. Some incidents happened in my life, which make me think this way. When I see someone hurt, I think of what I could do to help. This situation occurs very often."

"I pictured myself...buying nurse's shoes...in the hospital wearing my shoes walking around quietly attending to patients...comforting them;...I like shoes... I could have 50 pair and still want more. To me little things always seem to make up a lady, gloves, shoes, bag, etc..."I felt proud walking into the shop buy the shoes they seemed to me a symbol of a nurse."

"I pictured myself as a family man. I pictured myself as working for my family to better their well-being."

APPENDIX F

G. DIRECTION; FOCUS

SELF

"...working for myself, trying to better myself. So that someday I can sit back and relax in a sort of dream world."

SITUATION

"I plan to go to a special school for cooks, and then try to get a job."

"...I see myself in the job of a mechanic. I am almost sure that it will come true for I am now training."

"I always seem to picture myself as an automobile mechanic. I am happy when I am around cars or trucks. My knowledge of cars and trucks is good and I have been told I could get a job already."

SELF-SITUATIONAL RELATION

"I want to be different and yet I want the same things of life as the natural person would. That is why I try not to much on the unrealistic things now and concentrate on improving the studies for my chosen field (stenographer) and trying to be happy which I actually achieve when realizing this is one thing I can really do well that may be someone else can't."

"I decided to become a chef when I started cooking things for supper and other meals. I felt since cooking is the only thing I liked and could do well, I would try to become one. Not many people are going into that field and it is a man's profession anyways...etc."

"When I graduate high school, I'll be 18 by that time. By this I'll know whether I'll be good enough to stick to sports, if not I plan to join the Air Force and get a little further education. If I'm really interested in planes after that I'll go into it. If not, I'll go and try to be a cop. By this time I'll be 21. This way I have a chance to put all my dreams to a test, and find out which one is really what I want."

"I picture myself as a professional man in some type of teaching. I will probably teach in a vocational school for various reasons. One is I like to work with tools. Another is at this time I like to work with children younger than myself. This feeling started when I taught Sunday School two years ago."

"I picture myself as a TV cameraman. I know it takes many years of studying but I think I have figured out a way to do it. At the present time I have a home correspondence course on Radio and Television. I am going to try and work my way through college if I can get into one."

APPENDIX G

Judge________________ Case No._________ Sex_________ Date__________________________

MODE: P RATING:

	Present, Negative	Absent	Present, Positive
A. AWARENESS	—	0	1 2 3 4 5
B. ANALYSIS, INSIGHT, UNDERSTANDING	—	0	1 2 3 4 5
C. DIFFERENTIATION	—	0	1 2 3 4 5
D. MOTIVATION	—	0	1 2 3 4 5
E. EMOTIONAL TONE, COLORATION	—	0	1 2 3 4 5
F. VALUE ORIENTATION	—	0	1 2 3 4 5
G. DIRECTION AND FOCUS	—	0	1 2 3 4 5
H. INTEGRATION	—	0	1 2 3 4 5
SUMMARY RATING:	—	0	1 2 3 4 5

JUDGES' COMMENTS:

(In rating protocols, please indicate opposite name of factor in left-hand margin the number of the protocol containing any phrase which effectively illustrates that particular factor, marking the particular phrase in red crayon on the protocol sheet itself. There may be only one or two of these which you may want to point out in the whole batch of protocols.)